Nicoleta Serban

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I. DEGREES

Ph.D. in Statistics	August 2005
Carnegie Mellon University	Pittsburgh, PA
M.S. in Statistics	January 2002
Carnegie Mellon University	Pittsburgh, PA
M.S. in Stochastic Processes and Theoretical Statistics	February 2000
University of Bucharest	Bucharest, Romania
BS in Mathematics	June 1998
University of Bucharest	Bucharest, Romania

II. EMPLOYMENT HISTORY

(A) Academic Appointments

Georgia Institute of Technology, ISyE	Atlanta, GA
Peterson Professor	Spring 2022-2024
Georgia Institute of Technology, ISyE	Atlanta, GA
Virginia C. and Joseph C. Mello Professor	Fall 2019-Fall 2021
Georgia Institute of Technology, ISyE	Atlanta, GA
Professor	Fall 2018-present
Georgia Institute of Technology, ISyE	Atlanta, GA
Coca Cola Associate Professor	Fall 2015-Spring 2018
Georgia Institute of Technology, ISyE	Atlanta, GA
Associate Professor	Fall 2012-Spring 2018
Georgia Institute of Technology, ISyE	Atlanta, GA
Assistant Professor	Fall 2005-Spring 2012
Statistical and Applied Mathematical Sciences Institute	Research Triangle, NC
Research Fellow	Fall 2006
Carnegie Mellon University	Pittsburgh, PA
Teaching Assistant	Fall 2000-Spring 2005

(B) Industry Appointments

Eli Lilly and Company	Indianapolis, IN
Summer Research Intern	Summer 2003
Siemens Corporate Research	Princeton, NJ
Summer Research Intern	Summer 2001

III. HONORS AND AWARDS

Selected to participate in the *2017 Arab-American Frontiers Symposium, National Academies of Sciences, Engineering, and Medicine*
2014 Best Paper Award in the Public Sector, Operations Research Section, *INFORMS Meeting*
Selected to participate in the *2014 Japan-America Frontiers of Engineering Symposium, National Academy of Engineering*
Selected to participate in the *2011 National Academy of Engineering Frontiers of Engineering Symposium*
2010 CAREER Award, *National Science Foundation*
2008 Class of 1969 Teaching Fellow, *Center for the Enhancement of Teaching and Learning*, Georgia Institute of Technology.
2007-2008 New Researcher Fellowship, *Statistical and Applied Mathematical Sciences Institute*
2006 Young Researchers Roundtable, *INFORMS Practice Conference*
2004 David Byar Young Investigator Award, *ASA Biometrics Section*

IV. RESEARCH, SCHOLARSHIP, AND CREATIVE ACTIVITIES

Most publications (90% of total) are co-authored with students and/or postdoctoral fellows noted in boldface, with description of the type of advisement in footnotes 1-5.
Corresponding author for each publication is indicated as Author^c.

(A) Published Books

1. Rouse, W.B., Serban, N. (2014). *Understanding and Managing the Complexity of Healthcare*, MIT Press.

2. Serban, N. (2019). *Healthcare System Access: Measurement, Inference and Intervention*, John Wiley & Sons, NJ.

(B) Refereed Publications, Submitted and In-Preparation Articles

Examples of leading journals in statistics from publications below include Journal of the American Statistical Association (2.063), Technometrics (1.814), Biometrics (1.714), and Annals of Applied Statistics (1.746). Towards informing decision-making in health, many publications are in top journals in related disciplines, including Genomics (3.327), American Journal of Public Health (4.371), Journal of Allergy and Clinical Immunology (11.48), Health Services Research (2.865), Medical Decision Making (3.240) and Ophthalmology (5.563). Corresponding author is noted with *Author*^{c}.

(B1) Published and Accepted Journal Articles

1. Handley, D.^{c}, Serban, N., Peters, N., O'Doherty, R., Wasserman, L., Spirtes, P., Scheines, R., Glymour, C.

(2004) "Evidence of systematic expressed sequence tag IMAGE clone cross-hybridization on cDNA microarrays," *Genomics*, 83(6):1169-75.

2. Handley, D.[c], Serban, N., Peters, N.,Glymour,C. (2004) "Concerns About Unreliable Data from Spotted cDNA Microarrays Due to Cross-Hybridization and Sequence Errors," *Statistical Applications in Genetics and Molecular Biology*,3(1).

3. Serban, N.[c] and Wasserman, L. (2005) "CATS: Cluster Analysis by Transformation and Smoothing," *Journal of the American Statistical Association*, 100 (471), pp 990-999.

4. Serban, N.[c] (2007) "MICE: Multiple-peak Identification, Characterization and Estimation," *Biometrics*, 63, 531-539.

5.* Zhang, P and Serban, N.[c] (2007) "Discovery, Visualization and Performance Analysis of Enterprise Workflow," *Journal of Computational Statistics and Data Analysis*, 51, 2670-2687.

6. Serban, N.[c] (2008) "Clustering in the Presence of Heteroscedastic Errors," *Journal of Nonparametric Statistics*, 20(7), 553-571.

7. Serban, N.[c] (2009) "Clustering Confidence Sets," *Journal of Statistical Planning and Inference*, 139, 109 -124.

8. **Kantanantha, N.**[1], Serban, N.[c], Griffin, P. (2010) "Yield and Price Forecasting for Stochastic Crop Decision Planning," *Journal of the Agricultural, Biological, and Environmental Statistics*, vol 15 (3), pp 362-373.

9. Shafti, F.[c], Bedford, T., Deleris, L.A., Hosking, J.R.M., Serban, N., Shen, H., Walls, L. (2010), "Service Operations Classification for Risk Management," *IBM Journal of Research and Development*, Volume 54, Number 3.

10. Serban, N.[c] (2010) "Multi-Dimensional Biomolecular NMR Studies: Noise Reduction and Component Identification," *Computational Statistics and Data Analysis*, Volume 54 (4), pp 1051-1065.

11. **Zhou, R.R.**[1], Serban, N.[c], Gebraeel, N. (2011) "Degradation Modeling and Lifetime Monitoring using Functional Data Analysis," *Annals of Applied Statistics*, 5 (2B), 15861610.

12. **Yu, Z.**[1], Rouse, W.B.[c], Serban, N. (2011) "A computational theory of enterprise transformation," *Systems Engineering*, 14(4), pp 441-454.

13. Rouse, W.B.[c], Serban, N. (2011). "Complex Systems: Causality, Complexity and Modeling," *Information Knowledge Systems Management*, 10, 125.

14. Serban, N.[c] (2011), "A Space-Time Varying Coefficient Model: The Equity of Service Distribution," *Annals of Applied Statistics*, 5 (3), 2024-2051.

15. **Jiang, H.**[1], Serban, N.[c] (2012) "Clustering Random Curves Under Spatial Interdependence: Classification of Service Accessibility," **featured with discussions**, *Technometrics*, 54 (2), 108-119.

16. **Jiang, H.**[1], Serban, N.[c] (2012) "Rejoinder: Clustering Random Curves Under Spatial Interdependence: Classification of Service Accessibility,", *Technometrics*, 54 (2), 134-137.

17. **Zhou, R.R.**[1], Gebraeel, N.[c], Serban, N. (2012), "Degradation Modeling and Monitoring of Truncated Degradation Signals," 44 (9) Special Issue on Quality & Reliability Engineering, *IIE Transactions*, featured in the *the IIE Magazine*.

18. Serban, N.[c], **Jiang, H.**[1] (2012) "Multilevel Functional Clustering Analysis," *Biometrics*, 68(3), 805-814.

19. Kirkizlar E., Serban N., **Sisson J.A.**[2], Swann J.L.[c], Barnes C.S., Williams M.D. (2013) "Evaluation of telemedicine for screening of diabetic retinopathy in the veterans health administration." *Ophthalmology*, 120(12) 2604-2610.

[1]Former Ph.D. student under Dr. Serban's advisement or co-advisement.

[2]Former or current Ph.D. student in ISyE collaborating with Dr. Serban on one particular project.

20. Serban, N.[c], Staicu, A.M., Carroll, R.J. (2013), "Multilevel Cross-dependent Binary Longitudinal Data", *Biometrics*, 69 (4), 903-913.

21. Serban, N.[c], Li, P. (2014) "A statistical test for Mixture Detection in A Multi-dimensional Regression Model," *Canadian Journal of Statistics*, 42(1), 36-60.

22. **Yu, Z.**[1], Serban, N., Rouse, W.B.[c] (2013), "The Demographics of Change: Enterprise Characteristics and Behaviors that Influence Transformation", *Journal of Enterprise Transformation*, 3, 285306.

23. **Zhou, R.R.**[1], Serban, N.[c], Gebraeel, N., Müller, H.G. (2014), "A Functional Time Warping Approach to Modeling and Monitoring Truncated Degradation Signals," *Technometrics*, 56 (1), p. 67-77.

24. **Ngueyep, R.**[1,c], Serban, N. (2015), "Large Vector Auto Regressions for Multi-Layer Spatially Correlated Time Series", *Technometrics*, 57 (2), 207-216.

25. **Nobles, M.**[2], Serban, N.[c,*], Swann, J.L. (2014), "Measurement and Inference on Pediatric Healthcare Accessibility", **with discussions**, *Annals of Applied Statistics*, 8 (4), 1922-1946.

26. **Nobles, M.**[2], Serban, N.[c], Swann, J.L. (2014), "Rejoinder: Measurement and Inference on Pediatric Healthcare Accessibility", *Annals of Applied Statistics*, 8 (4), 1961-1965.

27. **Zhou, R.R.**[1], Serban, N.[c], Gebraeel, N. (2014), "Degradation-based Residual Life Prediction Under Different Environments", *Annals of Applied Statistics*, 8(3), 1671-1689.

28. **Hilton, R.**[1,c], Serban, N. (2014), "Theoretical Limits of Component Identification in a Separable Nonlinear Least Squares Problem", *Journal of Nonparametric Statistics*, 26(4), 769-791.

29. Basole, R.C.[c], Braunstein,M., Kumar,V., Park, H., Kahng, B., Chau, P., Tamersoy, A., Hirsh, D.A., Serban, N., Bost, J., Lesnick, B., Schissel, B.L., Thompson, M. (2015) "Understanding Variations in Pediatric Asthma Care Processes in the Emergency Department using Visual Analytics", *Journal of the American Informatics Association*, in press with online version available.

30. **Davila-Payan, C.**[2], DeGuzman, M., Johnson, K.[2], Serban, N. and Swann, J.[c] (2015), "Estimating Prevalence of Overweight and Obese Children in Small Geographical Areas using Publicly Available Data", *Preventing Chronic Diseases*, Volume 12, 140229.

31. **Garcia, E.**[1], Serban, N.[c], Swann, J., Fitzpatrick, A. (2015) "A study of the Impact of Geographic Access on Severe Health Outcomes for Pediatric Asthma", *Journal of Allergy and Clinical Immunology*, featured as a New Research Article, 136(3):610-8.

32. **Li, Z.** [2], Serban, N., Swann, J.[c] (2015),"An optimization framework for measuring spatial access over healthcare networks", *BMC Health Services Research*, 15:273.

33. **McCarthy, N.**[2], Serban, N., Rouse, W.B.[c] (2015), "Disentangling Competitive Advantage and Superior Performance", *Journal of Enterprise Transformation*, 5, 113-140.

34. **Gentili, M.** [3,c], Isett, K., Serban, N., Swann, J. (2015) "Small-Area Estimation of Spatial Access to Pediatric Primary Care and Its Implications for Policy", *Journal of Urban Health*, 92(5):864-909.

35. **Heir Stamm, J.**[2,c], Serban, N., Swann, J.L., Wortley, P. (2017) "Quantifying and Explaining Accessibility with Application to the 2009 H1N1 Vaccination Campaign", *Health Care Management Science*, 20(1), 76-93.

36. **Harati, P.**[4], **Gentili, M.**[3,c], Serban, N. (2016) "Projecting the Impact of the Affordable Care Act Provisions on Accessibility and Availability of Primary Care for the Adult Population in Georgia", *American Journal of Public Health*, 106(8):1470-6.

37. **McCarthy, N.**[2], Serban, N., Rouse, W.B.[c] (2016), "A multidimensional approach to understanding the value deficiencies that drive enterprise transformation", *Journal of Enterprise Transformation*, vol 6, 1-22.

38. **Yu, Z.**[1,c], Rouse, W.B., Serban, N., Veral, E. (2016) "An Agent-Based Decision Support Model For Hos-

[3]Former/Current Postdoctoral or Visiting Scholar under Dr. Serban's advisement.

[4]Current Ph.D. student under Dr. Serban's advisement or co-advisement.

pital Consolidation", *Journal of Enterprise Transformation*, **featured** in ISE Magazine, 6(3-4), pp 136-161.

39. **Cao, S.**[2], **Gentili, M.**[3], Griffin, P., Griffin, S., **Harati, P.**[4], **Johnson, B.**[1], Serban, N.[c], Tomar, S. (2017) "Estimating demand for and supply of pediatric preventive dental care for children and identifying dental care shortage areas, Georgia", *Public Health Reports*, 132(3) 343-349.

40. **Gentili, M.**[3], Serban, N.[c], **Harati, P.**[4], O'Connor, J., Swann, J. (2018) "Quantifying Disparities in Accessibility and Availability of Pediatric Primary Care with Implications for Policy", *Health Services Research*, 53(3), 1458-1477.

41. **Johnson, B.**[1,c], Serban, N., Griffin, P., Tomar, S. (2017) "The Cost-Effectiveness of Three Interventions for Providing Preventive Services to Low-Income Children", *Community Dentistry and Oral Epidemiology*, 45(6), 522-528.

42. **Hilton, R.**[1], **Zheng, Y.**[1], Serban, N.[c] (2018) "Modeling Heterogeneity in Healthcare Utilization Using Massive Medical Claims Data", *Journal of the American Statistical Association*, 113(521), 111-121.

43. **Hilton, R.**[1], **Zheng, Y.R.**[1], Fitzpatrick, A., Serban, N.[c,*] (2017) "Uncovering Longitudinal Health Care Behaviors for Millions of Medicaid Enrollees: A Multistate Comparison of Pediatric Asthma Utilization", *Medical Decision Making*, 38(1):107-119.

44. **Cao, S.**[2], **Gentili, M.**[3], Griffin, P., Griffin, S., Serban, N.[c] (2017) "Disparities in Access to Preventive Dental Care between Publicly and Privately Insured Children in Georgia", *Preventive Disease Control*, 14:170176.

45. **Ngueyep, R.**[1,c], Serban, N. (2018) "High-Dimensional Multivariate Additive Regression for Uncovering Contributing Factors to Healthcare Expenditure", *Biostatistics*, 19(3):359-373.

46. **Lee, I.**[3,c], **Monahan, S.**[5], Serban, N., Griffin, P., Tomar, S. (2018) "Estimating the Cost Savings of Preventive Dental Services Delivered to Medicaid-Enrolled Children in Six Southeastern States", *Health Services Research*, 53(5):3592-3616.

47. **Zheng, Y.**[1,c], **Lee, I.**[3], Serban, N. (2018) "Regularized Optimization with Spatial Coupling for Robust Decision Making", *European Journal of Operations Research*, 270, Issue 3(1), 898-906.

48. **Johnson, B.**[1], **Ngueyep, R.**[1], Schechter, M., Serban, N.[c], Swann, J. (2018) "A study of the Impact of Geographic Access on Health Outcomes for Cystic Fibrosis", *Peadiatric Pulmonology*, 53(3), 284-292.

49. **Zheng, Y.**[1], Serban, N.[c] (2018) "Clustering the Burden of Pediatric Chronic Conditions in the United States using Distributed Computing", *Annals of Applied Statistics*, Vol. 12, No. 2, 915-939.

50. Serban, N.[c], Tomar, S. (2018) "ADA Health Policy Institutes Methodology Overestimates Spatial Access to Dental Care for Publicly Insured Children", *Journal of Public Health Dentistry*, Vol 78, Issue 4, 291-295.

51. **Johnson, B.**[1,c], Serban, N., Griffin, P., Tomar, S. (2018) "Does Silver Diamine Fluoride Reduce Caries Treatment Expenditures in US Children?", *Journal of Public Health Dentistry*, 78(4):291-295.

52. **Lee, I.**[3,c], **Curry, S.**[4], Serban, N.(2019) "Solving Large Batches of Linear Programs", *INFORMS Journal of Computing*, vol 31(2), 02317.

53. **Pujol, T.**[4,c], Serban, N., Swann, J., Kottke, M. (2019) "Medicaid Claims for Contraception Among Women With Medical Conditions After Release of the US Medical Eligibility Criteria for Contraceptive Use", *Preventive Disease Control*, Jan 3;16:E03.

54. **Moran, A.**[5], Serban, N.[c], Danielson, M., Grosse, S., Cuffe, S. (2019) "Adherence to Recommended Care Guidelines in the Treatment of Preschool-Age Medicaid-Enrolled Children With a Diagnosis of ADHD", *Psychiatric Services*, 70(1): 2634.

55. **Smith, A.**[5], Serban, N. [c], Fitzpatrick, A. (2019), "Asthma Prevalence Among Medicaid-enrolled Children", *Journal of Allergy and Clinical Immunology: In Practice*, 7(4):1207-1213.

[5]Former or current MS or undergraduate student under Dr. Serban's (co)advisement.

56. Serban, N.[c], **Bush, C.**[5], Tomar, S. (2019) "Medicaid Caseload for Pediatric Dental Care", *Journal of the American Dental Association*, 150(4), 294-304.

57. Serban, N.[c], **Harati, P.**[4], **Munoz Elizondo, J.M.** [5], Sharp, W. (2020) "An Economic Analysis of Intensive Multidisciplinary Interventions for Treating Medicaid-insured Children with feeding disorders", *Medical Decision Making*, vol 4, issue 5.

58. **Harati, P.**[4], Cummings, J., Serban, N.[c] (2020) "Provider-level Caseload of Psychosocial Services for Medicaid-Insured Children", *Public Health Reports*, 135(5):599-610.

59. Keskinocak, P.[c], **Oruc, B.E.** [2], **Baxter, A.**[2], **Asplund, J.**[3], Serban, N. (2020) "The Impact of Social Distancing on COVID19 Spread: State of Georgia Case Study", *PLOS One*, 15 (8), e0236455.

60. **Pujol, T.**[1,c], Serban, N., Swann, J., Kottke, M. (2021) "Assessing Health and Wellness Outcomes of Infants Born to Adolescent Mothers", *Journal of Maternal and Child Health*, 25(5):821-831.

61. **Curry, S.**[1], Serban, N.[c] (2021) "Accounting for uncertainty in policy decision making: Improving access to pediatric dental care", *Health Services Research*, 56(2):214-224.

62. **Yildirim, F.M.**[2], Shih, J., Keskinocak, P., Serban, N.[c] (2021) "Reflecting on Prediction Strategies for Epidemics: Preparedness and Public Health Response", *Annals of Allergy, Asthma & Immunology*, 126(4):338-349.

63. **Oruc, B.E.**[2], **Baxter, A.**[2], Keskinocak, P.[c], **Asplund, J.**[3], Serban, N. (2021) "Homebound by COVID19: The Benefits and Consequences of Intervention Strategies", *BMC Public Health*, 21, 655.

64. **Curry, S.**[1,c], **Lee, I.**[3], **Ma, S.**[4], Serban, N.(2022) "Global Sensitivity Analysis via a Statistical Tolerance Approach", *European Journal of Operations Research*, Vol 296 (1), pages 44-59.

65. Serban, N., **Ma, S.**[4], **Pospichel, K.**[5], **Wang, L.**[5] (2022) "Evaluating Access to Pediatric Dental Care in U.S. Southeast States with Implications for Policy Making", *Journal of the American Dental Association*, Apr;153(4):330-341.e12.

66. **Zheng, Y.**[1], **Lee, I.**[3], **Xie, Y.**[4], **Dehaghnian, A.**[3], Serban, N.[c] (2022) "Variable Partitioning for Distributed Optimization", *European Journal of Operations Research*, vol 299 (1), Pages 60-74.

67. Cummings, J., **Shellman, M.**[5], Stein, B., **Asplund, J.**[3], **Lin, H.**[5], Serban, N. (2022) "Association between in-home services and engagement in psychosocial services among Medicaid-enrolled youth", *Journal of the American Academy of Child & Adolescent Psychiatry*, 61(11), pages 1351-1361.

68. **Baxter, A.**[2], **Oruc, B.E.**[2], Keskinocak, P.[c], **Asplund, A.**[3], Serban, N.(2022) "Evaluating Scenarios for School Reopening under COVID19", *BMC Public Health*, 22 (496).

69. Serban, N[c], **Anderson, A.**[5], **Oberst, G.**[5], **Edupuganti, N.**[5], **Ramachandran, R.**[5], **Solipuram, S.**[5], **Lu, T.**[5],(2022), "Assessment of Dentist Participation in Public Insurance Programs for Children in the US", *JAMA Open Network*, 5(7):e2221444.

70. E.Y. Cramer et al. (2022), "Evaluation of individual and ensemble probabilistic forecasts of COVID-19 mortality in the US" *Proceedings of the National Academy of Sciences (PNAS).* https://doi.org/10.1073/pnas.2113561119.

71. **Ma, S.**[1], Serban, N.[c], **Dehaghnian, A.**[3], Tomar, S. (2023), "The Impact of Dentists Availability in Delivering Dental Care in Florida Elementary Schools", *Journal of Public Health Dentistry*, 83 (1), Pages 60-68.

72. Yang, S., **Lee, J.**[2], **Ma, S.**[1], Serban, N. (2023) "Deep Attention Q-Network for Personalized Treatment Recommendation", *2023 IEEE International Conference on Data Mining Workshops (ICDMW)*, Shanghai, China, 2023, pp. 329-337, doi: 10.1109/ICDMW60847.2023.00048.

73. Fundora, M.P.[c], **Kalicheti, M.**[5], **Zhao, G.**[4], Maher, K., Serban, N. (2024) "Opioid Utilization After Cardiac Surgery Hospitalization in the Pediatric Medicaid-insured Population", *Journal of Pediatrics*, vol 265,

113809.

74. **Dehaghnian, A.**[3,c], **Xie, Y.**[4], Serban, N. (2024) "Identifying Socially Optimal Equilibria using Combinatorial Properties of Nash Equilibria in Bimatrix Games", *INFORMS J. of Computing*,vol 36 (5): 1147-1358.

75. Girodano, N.A., **Zhao, G.**[4]., **Kalicheti, M.**[5], Schenker, M.L., Wimberly, Y., Rice, C.W., Serban, N. (2024) "Opioid Utilization After Trauma Hospitalization in the Medicaid-insured Adults", *Frontiers in Public Health*, vol 12 doi.org/10.3389/fpubh.2024.1327934.

76. **Kim, D.**[2], Cuffe, S.P.,Naylor, M.W., Keskinocak, P., Serban, N. (2024) "Adherence to Clinical Practice Guidelines and FDA Approved Psychotropic Medication to Treat Medicaid-insured Children with ADHD", *Psychiatric Services Journal*,75(11):1151-1156.

77. **Ma, S.**[1], **Dehaghnian, A.**[3,c], Garcia, G.G., Serban, N.[c] (2024) "Learning Hidden Markov Models with Structured Transition Dynamics", *INFORMS J. of Computing*, https://doi.org/10.1287/ijoc.2022.0342.

78. Serban, N.[c], Ma, S.[1], **Yu, J.**[5], **Anderson, A.**[5], **Pospichel, K.**[5], **Solipuram, S.**[5], Tomar, S. (2024) "Dental Care Access for Children in the United States", *Journal of the Public Health Dentistry*, 84(4), 351-361.

79. **Xie, Y.**[4], **Harati, P.**[1], Thapa, J., Serban, N.[c] (2025) "Evaluating Access to Psychosocial Services for the Medicaid-Insured Children in Georgia", *BMC Public Health*, 25 (244).

80. Lee, J.[2,c], Ma, S.[1], Serban, N., Yang, S. (2025) "Inverse Probability of Treatment Weighting with Deep Learning Enables Accurate Treatment Effect Estimation from Electronic Health Records", *JAMIA Open Network*, accepted.

81. **Liu, W.**[5], **Xie, Y.**[4], Vinson, S., **Yu, J.**[5], Serban, N.[c] (2025) "Prevalence of Diagnosed Mental Health Conditions among Children with Public and Commercial Insurance", *BMC Public Health*, accepted.

82. **Xie, Y.**[4,c], Garcia, G-G., Song, E., Serban, N.(2025) "Evaluating Access to Pediatric Psychosocial Services: A Discrete Event Simulation Approach", *Journal of Simulation*, accepted.

83. N. Serban, J. Sokol, T. Ketenci (2025) "Students Use of Generative AI tools in Multiple Choice Exams", *INFORMS Transactions on Education* accepted.

(C) Other Publications And Creative Products

1. Liu, Y., Weaver, R., Schmidt, K., Serban, N., Cohn, J. (2001) "Facial Asymmetry: A New Biometric", Robotics Institute, Carnegie Mellon University, technical report, CMU-RI-TR-01-23. (with 38 citations)

2. Johnson, K., Bost, J., Serban, N., Swann, J.(2015) Pediatric Asthma Baseline for Georgia, Florida, and North Carolina (2006-2009)", research report, Childrens Healthcare of Atlanta.

3. Hilton, R., Zheng, Y., Bost, J., Serban, N. (2015) Profiling Utilization and Expenditure of Pediatric Asthma Patients in the Medicaid Population", research report, Childrens Healthcare of Atlanta.

(D) Presentations

(D1) Plenary Presentations at Conferences

1. *2012 Joint Statistical Meeting*,San Diego,CA, "Clustering Random Curves Under Spatial Interdependence: Classification of Service Accessibility", Jiang, H.[1], Serban, N. (presenter), sponsored by Technometrics Journal.
2. *2014 Joint Statistical Meeting*, Boston, MA, "Measurement and Inference on Pediatric Healthcare Accessibility", Nobles, M.[2], Serban, N. (presenter), Swann, J., sponsored by Annals of Applied Statistics Journal.
3. *2019 Beyond Reading Summit*, Atlanta, GA, "Cherish Kids Play Time", Serban, N.

4. *2020 Institute of Operations Research and the Management Sciences Meeting*, Forecasting Models for the COVID-19 Pandemic: Plenary Panel
5. *2021 Georgia Statistics Day*, Atlanta, GA, Computational Methods For Access Modeling, Serban, N. (presenter)

(D2) Invited Seminars at Academic and Non-Academic Organizations (as a presenter and invitee only)

1. *Eli Lilly and Company*, Indianapolis, IN, "Bootstrap Confidence Intervals for Functions of Parameters in Indirect Response Models," July 2003.
2. *Cleveland Clinic Foundation, Department of Biostatistics and Epidemiology*, Cleveland, OH, "Clustering Multiple Curves," May 2004.
3. *University of Illinois, Statistics Department*, Urbana-Champaign, IL, "Multidimensional NMR Spectra Identification for Protein Structure Determination," March 2006.
4. *Harvard University, Statistics Department*, Cambridge, MA, "High-Dimensional NMR Spectral Peak Analysis for Protein Structure Studies," April 2006.
5. *University of Georgia, Statistics Department*, Athens, GA, "High-Dimensional NMR Spectral Peak Analysis for Protein Structure Studies," September 2007.
6. *IBM Thomas Watson Research Center*, Yorktown Heights, NY, "Large Scale Clustering Dependent Curves," May 2008.
7. *IBM Thomas Watson Research Center*, Yorktown Heights, NY, "Multi-level and Multi-Scale Modeling of Spatially-Distributed Service Enterprises," August 2008.
8. *Texas A&M University, Statistics Department*, College Station, TX, "Multivariate Additive Regression: Estimation and Identification," September 2008.
9. *University of Toronto, Statistics Department*, Canada, "Multivariate Mixture Regression Modeling Applied to Multi-Dimensional NMR Biomolecular Studies," March 2009.
10. *University of Pennsylvania, Statistics Department, Wharton School*, Philadelphia, PA, "Model-Based Data Mining for Functional Data Under Spatial Interdependence," November 2009.
11. *Stanford University, Statistics Department*, Stanford, CA,"A Multilevel Space-Time Varying Coefficient Model: The Equity of Service Accessibility," August 2010.
12. *Stanford University, Graduate School of Business*, Stanford, CA, "The Equity of Healthcare Accessibility: Measurement and Inference," March 2011.
13. *University of California, Statistics Department*, Davis, CA, "Multilevel Functional Clustering Analysis," April, 2012.
14. *Universitè Pierre & Marie Currie, Department of Applied and Theoretical Statistics*, Paris, France, "Multilevel Functional Clustering Modeling", June, 2012
15. *Center of Research in Economic Statistics*, Paris, France, "A Functional Time Warping Approach to Modeling and Monitoring Truncated Degradation Signals," June 2012.
16. *Stevens Institute of Technology*, Hoboken, NJ, "Measurement and Inference on Pediatric Healthcare Accessibility", August 2012.
17. *Stevens Institute of Technology*, Hoboken, NJ, "The Equity of Care: Healthcare Accessibility," January 2013.
18. *Pennsylvania State University, Industrial and Manufacturing Engineering*, "Spatial Access to Pediatric Primary Care: A Multi State Comparative Study", October, 2014.
19. *Pennsylvania State University, Statistics Department*, "Profiling Utilization from Large, Highly-Sensitive Medical Claims Data", October, 2014.
20. *School of Business, The University of Hong Kong*, Hong Kong, "Understanding and Managing the Complexity of Healthcare", May 2015.
21. *IBM Thomas Watson Research Center*, Yorktown Heights, NY, "Health Analytics in Action: Modeling

Heterogeneity in Healthcare Utilization Using Massive Medical Claims Data ," November 2015.
22. *Massachusetts Institute of Technology, Operations Research Center*, Boston, MA, "Health Analytics in Action: Modeling Heterogeneity in Healthcare Utilization Using Massive Medical Claims Data," April 2016
23. *John Hopkins University, Biostatistics Department*, Baltimore, MD, "Health Analytics in Action: Influencing Oral Health Policy for Improving Access to Dental Care", November 2017
24. *Center for Evidence-based Policy at Oregon Health & Science University*, Portland, Oregon, "Projecting the Economic Impact of Silver Diamine Fluoride on Caries Treatment Expenditures", August 2019
25. *Virginia Tech*, Blacksburg, VA "Computational Methods For Healthcare Access Modeling", November 2019
26. *University of Michigan*, Ann Arbor, MI, "Computational Methods For Healthcare Access Modeling", November 2019
27. *National Academies of Science, Engineering and Medicine*, Guiding Cancer Control: A Path to Transformation, Washington, DC, "Overcoming Barriers in a Complex Adaptive System", November 2019.
28. *North Carolina State University*, "Computational Methods For Access Modeling", April 2021
29. *University of Michigan*, "Public Health Systems: Data Analytics", December 2021
30. Stevens Institute of Technology, "From Data Analytics to Making Research Impact", May 2022
31. *University of Chicago, Booth Business School*, "Distributed Computational Approaches", October 2022
33. *Karlsruhe Institute of Technology, Karlsruhe, Germany*, "Distributed Computational Approaches", December 2022
34. *University of Lisbon, Lisbon, Portugal*, "Healthcare Access Modeling under Uncertainty", November 2024
35. *NOVA Business School, Lisbon, Portugal*, "Healthcare Access Modeling under Uncertainty", December 2024

(D3) <u>Invited</u> Presentations at Georgia Tech and Local Collaborative Research Organizations

1. *Georgia Institute of Technology, Center for Signal & Image Processing*, Atlanta, GA, "Analysis of NMR signals for Protein Structure Determination," Serban, N., April 2006.
2. *Emory University, Rollins School of Public Health, Biostatistics Department*, Atlanta, GA, "High-Dimensional NMR Spectral Peak Analysis for Protein Structure Studies,"Serban, N., October 2006.
3. *Georgia Institute of Technology, School of Computing*, Atlanta, GA, "Model-Based Data Mining for Functional Data Under Spatial Interdependence," Serban, N., November 2009.
4. *Centers for Disease Control and Prevention, Modeling for Public Health Action: From Epidemiology to Operations*, Atlanta, GA, "The Impact of Individual Decisions on the Equity of H1N1 Vaccine Distribution," Heier Stamm, J.[2] (presenter), Serban, N., Swann, J., December, 2010.
5. *Emory University, Board of Advisors for Preparedness and Emergency Response Research Center (PERRC)*, "Quantifying and Explaining Access to H1N1 Vaccine", Heier Stamm, J.[2], Serban, N., Swann, J.,September 2012.
6. *Pediatric Research Retreat: Common Complex Childhood Diseases*, Atlanta, GA, "Impact of Spatial Accessibility on Pediatric Asthma Health Outcomes", Garcia, E. (presenter), Serban, N., Swann, J., June, 2013.
7. *Emory University, Research Advisory Committee Meeting*, Atlanta, GA, "Engineering in Public Health for Efficient, Effective, and Equitable Outcomes", N. Serban, J. Swann, November, 2013.
8. *Centers for Disease Control and Prevention*, Atlanta, GA. "Small-area Estimates for Pediatric Obesity." N. Serban and J. Swann, May 2014.
9. *Georgia Tech, H. Milton Stewart School of Industrial and Systems Engineering*, Advisory Board Meeting, "Big Data: Size, Complexity and Analytics", N. Serban, April, 2014.
10. *Centers for Disease Control and Prevention*, Atlanta, GA, "Health Analytics at Georgia Tech: From Information to Knowledge to Decision Making," N. Serban, J. Swann, May, 2014.
11. *Georgia Tech, Institute of People and Technology*, presenting to Rep. Senator Tom Price "Health Ana-

lytics for Public Health Systems", N. Serban, J. Swann, August, 2014.
12. *Emory University, Rollins School of Public Health, Biostatistics Department*, "Spatial Access to Pediatric Primary Care: A Multi State Comparative Study", Serban, N., Gentili, M., October, 2014.
13. *Advisory Board Collaborative Work Session, Harnessing the power of data in the new world*, Atlanta, GA, "From Data to Knowledge to Decision Making", Serban, N., April, 2015.
14. *Institute of People and Technology, Georgia Tech*, presenting to the CIO Grady Hospital Research Team, "Predictive Modeling for ED and ICU Patient Volume", N. Serban, July, 2015.
15. *Emory+Children's Pediatric Research Center, Research Grand Rounds*, Atlanta, GA, "Utilization and Expenditure for Pediatric Asthma Care in the Medicaid System: Comparing Georgia and North Carolina", Serban, N., August, 2015.
16. *Asthma Data and Evaluation Workgroup, Department of Public Health*, Atlanta, Georgia, "Healthcare Utilization and Expenditure for Medicaid-insured Children with Asthma", Serban, N., March, 2015.
17. *Georgia Tech, Institute of People and Technology*, presenting for Microsoft Collaborative Research Visit, "Data Analytics at Georgia Tech: From Information to Knowledge to Decision Making," N. Serban, April, 2016.
18. *Georgia House Health and Human Services Committee*, "Dental Care Delivery in Georgia: From Data to Health Policy Making", N. Serban, August, 2016.
19. *Healthcare Georgia Foundation*, Atlanta GA, "Dissemination of Health(care) Baseline Measures for Rural Communities", Webinar, January 2017.
20. *Healthcare Georgia Foundation*, Atlanta GA, "Health(care) Data Portal for The Two Georgias Initiative: A Demonstration Training Session on Making Data Meaningful", Webinar, November 2017.
21. *Machine Learning, Georgia Tech, Covid-19 Panel"* COVID19 modeling and resource allocation in Georgia", August 2020.
https://www.youtube.com/watch?v=nciYsxvcc6I&feature=youtu.be
22. *Institute of People and Technology, Covid19 Panel Roundup*, "COVID19 modeling and resource allocation in Georgia", September 2020.
23. *Georgia Behavioral Health Reform & Innovation Commission*, Public Hearing, Atlanta, GA, "Health Analytics: From Data to Decision Making," December 2020.
24. *Center of Excellence for Childrens Behavioral Health, Georgia State University*, Atlanta, GA, "Mental Healthcare Delivery in Georgia," January 2021
25. *Interagency Directors' Team, Georgia's System of Care for Children and Adolescents*, Atlanta, GA, "Mental Healthcare Delivery in Georgia," June 2021.

(D4) <u>Invited</u> Presentations at Conferences and Workshops (only presentations as a primary presenter or a sponsored student/postdoctoral fellow presenter)

1. *The Institute of Operations Research and the Management Sciences Meeting*, San Francisco, CA, "CATS: Clustering After Transformation and Smoothing," Serban, N., November 2005.
2. *The Institute of Operations Research and the Management Sciences Meeting*, San Diego, CA, "Degradation Modeling of Truncated Degradation Signals," Zhou, R.[1] (presenter), Gebraeel, N., Serban, N., November, 2009
3. *Southern Council of Statistics*, Virginia Beach, VA,"Association Analysis of Spatio-temporal Processes," Serban, N., June 2010.
4. *International Symposium on Business and Industrial Statistics*, Slovenia, "A Multilevel Space-Time Varying Coefficient Model: The Equity of Service Distribution," Serban, N., July 2010.
5. *The Institute of Operations Research and the Management Sciences Meeting*, Austin, TX, "The Equity of Financial Service Accessibility: A Multilevel Modeling Approach," Serban, N., November, 2010.
6. *The Institute of Operations Research and the Management Sciences Meeting*, Austin, TX, "Scarce Resource Allocation in Humanitarian Logistics Systems with Individual Decision Making," Heier Stamm, J.[2] (presenter), Ergun, O., Serban, N., Swann, J., November, 2010.

7. *The Institute of Operations Research and the Management Sciences Meeting*, Austin, TX, "Degradation Modeling of Complete, Sparse and Fragmented Degradation Signals," Zhou, R.[1] (presenter), Serban, N., Gebraeel, N., November, 2010.
8. *The Institute of Operations Research and the Management Sciences Meeting on Healthcare*, Montreal, Canada, "The Impact of Individual Decisions on the Equity of H1N1 Vaccine Distribution," Heier Stamm, J.[2] (presenter), Serban, N., Swann, J., June, 2011.
9. *The Institute of Operations Research and the Management Sciences Meeting on Healthcare*, Montreal, Canada, "The Equity of Pediatric Healthcare Accessibility: Measurement and Inference," Nobles, M.[2] (presenter), Serban, N., Swann, J., June, 2011.
10. *Joint Statistical Meeting*, Miami, FL, "The Impact of Individual Decisions on the Equity of H1N1 Vaccine Distribution", Heier Stamm, J.[2] (presenter), Serban, N., Swann, J., August, 2011.
11. *Joint Statistical Meeting*, Miami, FL, "A Space-Time Varying Coefficient Model: The Equity of Service Accessibility", Serban, N., August, 2011.
12. *The Institute of Operations Research and the Management Sciences Meeting*, Charlotte NC, "A Functional Time-Warping Approach for Degradation Modeling", Zhou R.[1] (presenter), Serban N., Gebraeel N., November 2011.
13. *The Institute of Operations Research and the Management Sciences Meeting*, Charlotte NC, "Quantifying and Explaining Access to H1N1 Vaccine", Heier Stamm, J.[2] (presenter), Serban, N., Swann, J., November 2011.
14. *The Institute of Operations Research and the Management Sciences Meeting*, Charlotte, NC, "The Equity of Pediatric Healthcare Accessibility: Measurement and Inference", Nobles, M.[2] (presenter), Serban, N., Swann, J., November 2011.
15. *Conference on Accelerated Life Testing and Degradation Models: Industry, Medicine, and Social Science*, Rennes, France, "A Functional Time Warping Approach to Modeling and Monitoring Truncated Degradation Signals," Zhou R.[1], Serban N., Gebraeel N., Müller, H.G., June 2012.
16. *Conference of the International Society for Nonparametric Statistics*, Chalkidiki, Greece, "Multilevel Spatially Correlated Binary Longitudinal Data", Serban, N., Staicu, A.M., Carroll, R., June 2012.
17. *Joint Statistical Meeting*, San Diego, CA, "Multilevel Functional Clustering Analysis", Serban, N., Jiang, H.[1], August, 2012
18. *The Institute of Operations Research and the Management Sciences Meeting on Healthcare, OR, and Analytics*, Chicago, IL, "Impact of Spatial Accessibility on Pediatric Asthma Health Outcomes", Garcia, E.[3] (presenter), Serban, N., Swann, J., June, 2013.
19. *IIE Annual Conference*, Montreal, Canada, "Spatial Access to Pediatric Primary Care: A study of disparities across multiple states in the U.S.", Gentili, M.[4] (presenter), Serban, N., Swann, J., June, 2014.
20. *IIE Annual Conference*, Montreal, Canada, "Quantifying and Explaining Access to H1N1 Vaccine", Heier Stamm, J.[2] (presenter), Serban, N., Swann, J., June, 2014.
21. *Academy Health Annual Research Meeting*, San Diego "Spatial Access to Pediatric Primary Care: A study of disparities across multiple states in the U.S.", Gentili, M.[4], Serban, N., Swann, J., June, 2014.
22. *The Institute of Operations Research and the Management Sciences Meeting*, San Francisco, CA, "Spatial Access to Pediatric Primary Care: A study of disparities across multiple states in the U.S.", Gentili, M.[4] (presenter), Serban, N., Swann, J., November, 2014.
23. *The Institute of Operations Research and the Management Sciences Meeting*, San Francisco, CA, "The Impact of Geographic Access on Severe Health Outcomes for Pediatric Asthma", Garcia, E.[3] (presenter), Serban, N., Swann, J., November, 2014
24. *The Institute of Operations Research and the Management Sciences Meeting*, San Francisco, CA, "Profiling Utilization from Large, Highly-Sensitive Medical Claims Data", Hilton, R.[3] (presenter), Serban, N., Zheng, R., November, 2014
25. *American College of Allergy and Immunology*, Atlanta, GA, Asthma, "Profiling and Visualizing Utilization and Cost for Pediatric Asthma Care in the Medicaid", Hilton, R.[3], Serban, N., Zheng, R.[3] (presenter),

November, 2014.
26. *INFORMS on Healthcare*, Nashville, TN, "Projecting the Impact of the Affordable Care Act Provisions on Accessibility and Availability of Primary Care for the Adult Population in Georgia", Harati, P.[3], Gentili, M.[4] (presnter), Serban, N., July 2015.
27. *60th International Statistical Institute World Congress*, Rio de Janeiro, Brazil, "A Functional Time Warping Approach to Modeling Truncated Degradation Signals", Zhou R.[1], Serban N., Gebraeel N., Müller, H.G., July 2015.
28. *Joint Statistical Meeting*, Seattle, WA, "Quantifying Disparities in Accessibility and Availability of Pediatric Primary Care with Implications for Policy Making", Gentili, M.[4], Serban, N., Swann, J., August, 2015.
29. *Joint Statistical Meeting*, Vancouver, Canada "Clustering The Prevalence Of Pediatric Chronic Conditions In The United States Using Distributed Computing", Zheng, Y., Serban, N.
30. *The Institute of Operations Research and the Management Sciences Meeting*, Anaheim, CA, "Identifying Disparity in Access to Psychosocial services for the Medicaid-Insured Children in Georgia", Y. Xie[4] (presenter), N.Serban, October 2021.
31. *The Institute of Operations Research and the Management Sciences Meeting*, Anaheim, CA, "Delivering Preventive Dental Care in Florida Schools: Understanding System Limits", A. Dehghanian[3] (presenter), N.Serban, October 2021.

(D5) Other Contributed Presentations at Conferences (only presentations as a primary presenter or a sponsored student/postdoctoral fellow presenter)

1. *Joint Statistical Meeting*,San Francisco, CA, "Identifying genes altered by a drug in temporal microarray data: A case study," Serban, N., August 2003.
2. *Eastern North American Region Meeting of the International Biometric Society*, Pittsburgh, PA, "Clustering Multiple Gene Expression Profiles," Serban, N., March 2004.
3. *Joint Statistical Meeting*, "Cluster Estimation Error," Toronto, Canada, August 2004.
4. *Eastern North American Region Meeting* of the International Biometric Society, Tampa, FL,"MICE: Multiple Peak Identification, Characterization and Estimation," Serban, N., March 2006.
5. *The Institute of Operations Research and the Management Sciences Meeting*, Pittsburgh, PA,"Integrating Workforce Communication into an Engineering Introduction to Statistics Course," Norback, J. S. and Serban, N. (presenter), November 2006.
6. *Statistical and Applied Mathematical Sciences Institute*, Research Triangle, NC, "Clustering Dependent Curves," Jiang, H.[1] (presenter) and Serban, N., November 2007.
7. *Joint Statistical Meeting*,"Large Scale Clustering Dependent Curves," Jiang, H.[1] (presenter) and Serban, N., Denver, CO, August 2008.
8. "Correlation Analysis for Spatially Interdependent Functional Data," Jiang, H.[1] (presenter) and Serban, N., August 2009, *Joint Statistical Meeting*, Washington, DC.
9. *Joint Statistical Meeting*, "Detailed-Product Forecasting and Promotion Analysis in Retailing," Kim, S. (presenter) and Serban, N., Washington, DC, August 2009.
10. *Eastern North American Region*, International Biometric Society'Cross-Correlation Analysis of Space-Time Varying Processes," Jiang, H.[1] (presenter) and Serban, N., New Orleans, March 2010.
11. *Joint Statistical Meeting*, San Diego, CA, "Large Vector Auto Regressions for Multi-Layer Spatially Correlated Time Series", Ngueyep, R.[1] (presenter), Serban, N., August, 2012.
12. *Joint Statistical Meeting*, "High Dimensional Multivariate Additive Regression," Ngueyep, R.[1] (presenter), Serban, N., August, 2014.
13. *Joint Statistical Meeting*, "Theoretical Limits of Component Identification in a Separable Nonlinear Least Squares Problem," Hilton, R.[3] (presenter), Serban, N., August, 2014.

(E) Societal And Policy Impacts

Dr. Serban's research has been disseminated widely among the local health policy makers and with contributions nationally, including collaborations with the Georgia Department of Public Health, the Georgia Department of Community Health, the Center for Disease Control and Prevention, and through participation in workshops organized by the Institute of Medicine and National Academy of Engineers. She has initiated a campus wide collaborative environment in Health Analytics, with the intent of creating a collaborative platform for research grounded in big healthcare data. She has also participated in many opportunities with the Institute of People and Technology, particularly acquiring and managing a large, highly-sensitive data on healthcare.

Media Coverage:

1. *Science News*: Analysis identifies disparities in pediatric primary care accessibility in multiple states
https://www.sciencedaily.com/releases/2015/08/150810110632.htm
2. *Medical Daily*: Pediatric Health Care Is Difficult To Access In Some States; Analysis Reveals Gaps For Publicly Insured Kids
http://www.medicaldaily.com/pediatric-health-care-difficult-access-some-states-analysis-reveals-gaps-publicly-346886
3. *Health IT Analytics*: How Georgia Tech Trains Healthcare Data Analytics Scientists
http://healthitanalytics.com/news/how-georgia-tech-trains-healthcare-data-analytics-scientists
4. *Analytics Magazine*: Georgia Techs ISyE Department forms Health Analytics group
http://analytics-magazine.org/georgia-techs-isye-department-forms-health-analytics-group/
5. *Georgia Public Policy Foundation*: Georgia Must Correct Dental Care Disparities
http://www.georgiapolicy.org/2016/07/georgia-must-correct-dental-care-disparities/
6. *DrBicuspid.com*: Second Opinion: Ga. must correct dental care disparities
http://www.drbicuspid.com/index.aspx?sec=ser&sub=def&pag=dis&ItemID=320053
7. *College of Engineering, Georgia Tech*: Solving Health Care Policy with Engineering
https://coe.gatech.edu/news/solving-health-care-policy-engineering
8. *Georgia Health News*: Huge numbers of Georgia children cant get dental care, researcher says
http://www.georgiahealthnews.com/2016/08/huge-numbers-children-dental-care-researcher/
9. *Atlanta Journal Constitution*: Georgia dental hygienists, dentists at odds over program for kids
http://www.myajc.com/news/state–regional-govt–politics/georgia-dental-hygienists-dentists-odds-over-program-for-kids/tO9EXLrXEI0AYWaOGCw3KK/
http://www.myajc.com/news/state–regional-govt–politics/georgia-lawmakers-push-bill-improve-kids-access-dental-care/Nck41eSo8ikkY7T9eTxVUP/
10. *Augusta Chronicle*: Large number of Georgia children cant get dental care, researcher says
http://chronicle.augusta.com/news/health/2016-08-23/large-number-georgia-children-can-t-get-dental-care-researcher-says
11. *Better Georgia*: Dental care for kids the next big battle in Georgia?
http://bettergeorgia.org/2016/08/26/dental-care-for-kids-the-next-big-battle-in-georgia/
http://bettergeorgia.org/2016/09/01/dental-care-in-georgia-another-source-of-medical-inequality-for-kids/
12. *Ledger-Enquirer*: Dental care another hurdle for Georgia kids
http://www.ledger-enquirer.com/opinion/article98184317.html
13. *Georgia Tech Research Horizons*: The Health Informatics revolution
http://www.rh.gatech.edu/features/health-informatics-revolution
14. *Dr.Bicusipid.com*: Why is it so difficult to estimate access to dental care? https://www.drbicuspid.com/index.aspx?sec=
15. *Georgia Tech Institute of People and Technology* Children on Medicaid May Lack Sufficient Access to Dental Care
http://ipat.gatech.edu/news/children-medicaid-may-lack-sufficient-access-dental-care
16. *Dr.Bicusipid.com*: Dentist Medicaid participation lower than expected
https://www.drbicuspid.com/index.aspx?sec=sup&sub=pmt&pag=dis&ItemID=324402
17. *IPaT*: Study Finds Gaps in Treatment for Children with ADHD on Medicaid

http://ipat.gatech.edu/news/study-finds-gaps-treatment-children-adhd-medicaid
18. *Georgia Health News*: Georgia Tech model predicts jump in COVID cases, deaths
https://www.georgiahealthnews.com/2020/05/georgia-tech-model-predicts-spike-covid-cases-deaths/
https://www.wuga.org/post/what-can-you-do-bring-numbers-down#stream/0
19. Covid-19 Interventions Can Cut Virus Infections, Severe Outcomes, and Healthcare Needs
https://rh.gatech.edu/news/640466/covid-19-interventions-can-cut-virus-infections-severe-outcomes-and-healthcare-needs

(F) Grants And Contracts

Summary: Dr. Serban has received over $3.5 millions in funding as PI and $1 million as Co-PI/I for research. Sources of funding vary but include the National Science Foundation, National Institutes of Health, Centers for Disease Prevention and Control, Children's Healthcare of Atlanta, research gifts, companies and others.

(F1) As Principal Investigator

1. Title: Health Analytics Research Gift
Christopher Wolf Crusade $80,000 April 2022-March 2024
PI: N. Serban
2. Title: Access to Preventive Dental Care for Children in the United States
National Institutes of Health $1,473,218 September 2018-May 2022
PI: N. Serban
3. Title: Community-Based Approaches to Improve Behavioral Health Services for Underserved Youth in Rural Areas
Robert Wood Johnson Foundation $350,000 ($146,179 GT Funds) September 2018-September 2021
PIs: J. Cummings, N. Raymond, N. Serban
https://www.isye.gatech.edu/news/robert-wood-johnson-foundation-selects-isye-professor-nicoleta-serban-leadership-development
4. Title: Dynamic Modeling of COVID19: Evaluating the Impact of Interventions and Allocation of Scarce Resources
Pediatric Technology Center $10,000 July 2020-June 2021
PIs: P. Kekinocak, N. Serban
5. Title: Quantifying the Cost Benefits of Behavioral Therapy Interventions for Medicaid-enrolled Children with Severe Feeding Disorders
Quick Wins Proposal: Georgia Tech & Childrens Healthcare of Atlanta $25,000 December 2018-December 2019 (one year no-cost extension)
PI: N. Serban
6. Title of Project: The Health Pulse of a Community: A comprehensive Baseline Measurement Approach (Phase III)
Healthcare Georgia Foundation ($ 71,000) October 2017-December 2018
PI: N. Serban
7. Title of Project: Linking Spatial Access and Health Outcomes for Pediatric Asthma in the Medicaid System: Inferences and Interventions
National Institutes of Health ($272,000) September 2016-August 2018
PI: N. Serban co-Is: J. Swann, A. Fitzpatrick
8. Title of Project: Determination of the Barriers to the Application of Hematopoietic Stem Cell Transplantation for the Cure of Sickle Cell Disease

Children's Healthcare of Atlanta & GT IPaT ($ 40,000 GT funds) July 2016-June 2017
9. Title of Project: Health Analytics
Research Gift from Children's Healthcare of Atlanta ($60,000) Mar 2016- Apr 2018
PI: N. Serban

10. Title of Project: The Health Pulse of a Community: A comprehensive Baseline Measurement Approach
Healthcare Georgia Foundation ($ 110,000) October 2016-September 2017
PI: N. Serban

11. Title of Project: Data Analytics
Research Gift from Loadsmart (Ricardo Salgado) Donor ($25,000) August 2016- July 2017
PI: N. Serban

12. Title of Project: Health Analytics
Research Gift from Andrea Laliberte Donor($25,000) Mar 2016- Apr 2017
PI: N. Serban co-PI: P. Griffin

13. Title of Project: Linking Availability and Accessibility of Mental Health Service to patient-level healthcare utilization profiles for ADHD mental health care
George Foundation Predictive Health Awards ($10,000) Mar 2015-Apr 2017
PI: N. Serban; Co-PI: K. Isett
Title of Project: Predicting Spatial Access Disparities in Pediatric Primary Care Under the Affordable Care Act Provisions
George Foundation Predictive Health Awards ($10,000) Mar 2015-Apr 2017
PI: N. Serban, Co-PI: M. Gentili

14. Title of Project: CAREER: Service Distribution Equity using Spatio-Temporal Statistical Foundations
National Science Foundation ($ 403,550) Jun 2010 - May 2015 (extended to May 2016)
PI: N. Serban

15. Title of Project: Health Analytics
Research Gift from Andrea Laliberte ($25,000) Mar 2015- Apr 2016
PI: N. Serban; co-PI: P. Griffin

16. Title of Project: Asthma Care Flow Modeling for Children in the Medicaid Program
Children's Healthcare of Atlanta & GT IPaT ($ 85,154) Sept 2013 - Mar 2015
PI: N. Serban; co-PI: J. Swann, J. Bost

17. Title of Project 1: Linking Access to Health Outcomes for Cystic Fibrosis
Title of Project 2: Predicting Health Costs and Variations Geographically
George Foundation Predictive Health Awards ($10,000) Mar 2014-Apr 2016
PI: N. Serban co-PI: J. Swann

18. Title of Project: Multidimensional Mixture Regression Models: Estimation and Inference
National Science Foundation (Completed) ($100,000) Jul 2011 - Jun 2014
PI: N. Serban

19. Title of Project: Policy Interventions to Improve Access to Pediatric Asthma Specialized Healthcare
Children's Healthcare of Atlanta and GT IPaT ($50,000) Jan 2013-Dec 2013
PI: N. Serban; co-PI: J. Swann, A. Fitzpatrick

20. Title of Project: Measurement and Inference in the Equity of Specialized Pediatric Healthcare
Children's Healthcare of Atlanta and GT HSI ($49,772) Aug 2011-Dec2012
PI: N. Serban; co-PI: J. Swann, S. Welsh

21. Title of Project: Data Analytics
Research Gift from Predictix ($30,000) Aug 2010 - Aug 2011

PI: N. Serban

22. Title of Project: Data Analytics
Research Gift from Predictix ($30,000) Sept 2008-Aug 2009
PI: N. Serban

23. Title of Project: Data Analytics
Research Gift Dollar General ($100,000) Jan 2006-Aug 2008
PIs: W. B. Rouse and N. Serban

24. SAMSI New Researcher Fellowship ($20,000) Sept 2006-Aug 2007
PI: N. Serban

(F2) As Co-Principal Investigator

(F2.1) Current

1. Title: Georgia Center for Diabetes Translation Research
National Institute Of Diabetes And Digestive And Kidney Diseases $3,866,259 August 2021-September 2026
PI: Kabayam M Venkat Narayan (Emory University)

(F2.2) Completed

1. Title: Optimizing Lung Cancer Screening for Vulnerable, High Risk Population
Georgia Tech Research Center $71,000 July 2020-June 2021
2020 Small Bets Seed Grant Award
PIs: D. Hughes

2. Title of Project: Georgia Diabetes Translation Research Center
National Institutes of Health ($219,462 GT funds) Sept 2016 Aug 2018
PI: B. Mynatt co-I: N. Serban

3. Title of Project: Determination of the Appropriate Level of Preventive Dental Services for Children by Risk Status and Special Healthcare Needs
Children's Healthcare of Atlanta & GT IPaT ($ 50,000) Sept 2016- Jun 2017
PI: P. Griffin; co-PI: N. Serban

4. Title of Project: Research and Simulation to Improve Military Healthcare
Military Health System ($ 45,000 ISyE funds) Sept 2015- May 2017
PI: Craig Zimmering co-I: N. Serban; P. Griffin

5. Title of Project: Analytics for Transforming Health and Healthcare
Innovation in Data Engineering and Science Program (IDEAS) Georgia Tech ($150,000) Sept 2015- June 2017
PI: B. Mynatt co-I: P. Griffin, N. Serban, J. Swann and others

6. Title of Project: Assessing Adherence to Evidence-based Care Practice for Children Diagnosed with ADHD in the Medicaid System
Centers of Disease Prevention and Control & GT IPaT ($25,000) Jan 2015- May 2016
GT Investigators: PI: J. Swann; co-PI: N. Serban

7. Title of Project: Asthma Baseline for Children in the Georgia Medicaid Program
Children's Healthcare of Atlanta & GT IPaT ($ 74,955) Sept 2013 - May 2015
PI: J. Swann; co-PI: N. Serban, J. Bost

8. Title of Project: Approaches for Estimating Small-Area Prevalence of Pediatric Obesity for Improved Interventions
Centers of Disease Prevention & Control & GT IPaT($25,000) Ma 2013-Apr 2014

GT Investigators: PI: J. Swann; co-PI: N. Serban

9. Title of Project: One Million Healthy Children
IBM/Children's Healthcare of Atlanta/GA Cancer Coalition $180,000 ($40,000 for N. Serban and J. Swann) Aug 2010-Jul 2011
PI: E. Mynatt; co-PI: R. Basole, W. B. Rouse, N. Serban, J. Swann

10. Title of Project: Measurement and Evaluation of H1N1 Response Systems towards Driving Improvements in Effectiveness and Efficiency
Emory Preparedness and Emergency Response Research Center ($20,000) Feb 2011 - Sept 2012
PI: J. Swann; co-PI: N. Serban, J. Heier Stamm

11. Title of Project: Promoting Pediatric Wellness by Targeting Obesity Interventions through System Analysis
Children's Healthcare of Atlanta & GT HSI ($20,456) Aug 2010 - Dec 2011
PI: J. Swann, Co-PI: N. Serban

12. Title of Project: Evaluation and Design of Telemedicine for Screening of Diabetic Retinopathy
Veterans Administration & GT HSI ($50,000) August 2009 - June 2011
PI: J. Swann, co-PI: C. Barnes, N. Serban

(F3) Pending Proposals as PI or co-PI

1. Title: Addressing Access to Psychosocial Treatment for Medicaid-insured Children Using Integrated Simulation, Optimization and Statistical Learning
National Institutes of Health $3,234,485 April 2025-March 2030
PI: Nicoleta Serban co-I: Gian-Gabriel Garcia and Eunhye Song (Georgia Tech), Janet Cummings (Emory University)
2. Title: Addressing Mental Healthcare Utilization for Medicaid-insured Children Comparing School-based versus Other Care Settings
Agency for Healthcare Research and Quality $1,971,500 April 2025-March 2029
PI: Nicoleta Serban co-I: Janani Tharpa (University of Georgia), Steven Cuffe and Allison Ventura (University of Florida)

V. TEACHING

(A) Courses Taught

(A1) On-Campus Courses Taught

• ISyE 6414 - *Regression Data Analysis*: Graduate course
• ISyE 7401 - *Advanced Statistical Modeling*: Graduate course
• ISyE 6404 - *Nonparametric Data Analysis*: Graduate course
• ISyE 6402 - *Time Series Analysis*: Graduate course
• ISyE 6412 - *Theoretical Statistics*: Graduate course • ISyE 8803 - *Special Topic Course of Spatial Statistics*
• ISyE 2028 - *Basic Statistical Methods*: Undergraduate course

(A2) Recent Courses Developed

• ISyE 6414 - *Regression Analysis* (graduate course)
New Course Curriculum: Redesigned the course material to expand on the wide applicability of regression models, including the traditional linear regression models as well as machine learning approaches. The course

includes many data analysis examples with the accompanying implementation. The current implementation is in the R statistical software, with current efforts to translate the data analysis in python, with all the analysis in R and python being currently organized as a library in GitHub. The course content has been used by faculty members teaching this course every semester. This course also part of the Online MSA program at Georgia Tech with more than 1000 students taking the course every year.

• ISyE 6402 - *Time Series Analysis* (graduate course)

New Course Curriculum: Redesigned the curriculum of this course to incorporate modern time series methods commonly arising in applied and methodological time series studies; and included hands-on learning through computer lab lectures and hands-on project learning by requiring project work where students collected and analyzed time series data and present their findings. The current implementation is in the R statistical software, with current efforts to translate the data analysis in python, with all the analysis in R and python being currently organized as a library in GitHub. Additional efforts are also towards adding machine learning comparative methods, particularly forecasting systems developed by large tech companies. This course also part of the Online MSA program at Georgia Tech, with more than 250 students taking the course every year.

• ISyE 4803 - *Public Health Systems* (undergraduate course)

New Course Development: Together with Dr. Keskinocak, we developed a new course covering many topics on public health, including the introduction of healthcare systems along with their complexities, healthcare access and equity, prevention and wellbeing, and data and methodologies in healthcare modeling. The course includes extensive reading and presentations along with open-ending assignments, to foster creativity and self-learning. Students also learn in this course about their own health and wellbeing.

(B) Individual Student Guidance

(B1) Ph.D. Students

(B1.a) Graduated

1. Nantachai Kantanantha (co-advised with Dr. Paul Griffin)
Graduated Summer 2007 (Economic Decision Analysis track)
Thesis topic: Supply Chain Planning and Marketing Strategies for Storable Crops
Presently employed as Lecturer, Department of Industrial Engineering, Kasetsart University

2. Baabak Ashuri (co-advised with Dr. William B. Rouse)
Graduated Summer 2008 (Economic Decision Analysis track)
Thesis topic: Option-Based Investment Approaches in the Retail Industry
Presently employed as Associate Professor in Building Construction Program, Georgia Tech

3. Huijing Jiang
Graduated Fall 2010 (Statistics track)
Thesis topic: Statistical Computation and Inference for Functional Data Analysis
Presently employed as Statistics Researcher at IBM T.J. Watson Research Center

4.Rensheng Zhou (co-advised with Nagi Gebraeel)
Graduated Fall 2012 (Statistics track)
Thesis topic: Degradation modeling and monitoring for engineering systems
Former employed as Machine Learning Researcher at Amazon and presently a Data Scientists at Square.

5. Annie Yu (co-advised with William B. Rouse)
Graduated Fall 2014, Stevens Institute of Technology (transferred from Georgia Tech)
Thesis topic: Computational Enterprise Transformation
Presently employed as Postdoctoral Fellow, Stevens Institute of Technology

6. Rodrigue Ngueyep Tzoumpe

Graduated Spring 2015 (Statistics track)
Thesis topic: Model Selection and Estimation in High-Dimensional Settings
Presently employed as Statistics Researcher at IBM T.J. Watson Research Center

7. Ross Hilton
Graduated Fall 2015 (Statistics track)
Thesis topic: Model-Based Data Mining Methods for Identifying Patterns in Medical & Health Data
Awards: George Family Fellowship at GT (2013)
Presently employed as Corporate Credit Risk Analytics Team Leader at BB&T

8. Ben Johnson
Graduated Summer 2017 (Economic Decision Analysis track)
Thesis topic: Evaluating Policy Decisions In Health Systems
Awards: 2015 Sam Nunn Security Program Fellowship
Presently employed as OR Consultant at Revenue Analytics

9. Erin Garcia (with Julie Swann)
Graduated Summer 2017 (Manufacturing/Logistics track)
Thesis topic: Evaluating Access To Care And Utilization For Chronic Pediatric Conditions
Presently employed as Lecturer, Auburn University

10. Richard (Yuchen) Zheng
Graduated Summer 2018 (Statistics)
Thesis topic: Efficient And Distributed Computational Methods For Complex Systems
Awards: George Family Fellowship at GT (2014)
Presently employed as Data Scientist at Point72 Asset Management

11. Shanshan Cao (with Xiaoming Huo)
Graduated Summer 2019
Thesis topic: Integration of statistics and optimization with applications to public health and engineering
Awards: George Family Fellowship at GT (2014)
Presently employed at Eli Lilly

12. Stewart Curry
Graduated Summer 2019
Thesis topic: Uncertainty Quantification in Optimization Modeling
Awards: George Family Fellowship at GT (2014)
Presently employed at Norfolk Southern

14. Toyya Pujols
Graduated Summer 2020
Thesis topic: Analytics And Machine Learning For Healthcare Data
Awards: 2016-2018 NIH Training Grant Award, 2017 Goizueta Foundation Fellowship, 2018 Georgia Tech Sloan Fellowship
Presently employed at RAND Corporation

15. Pravara Harati
Graduated Summer 2021
Thesis topic: Integration of Specialized and Primary Care Services through Telehealth
Awards: George Family Fellowship & President's Fellowship at GT (2015); NSF Graduate Research Fellowship (2016), ARCS Scholar Award (2017 & 2018)
Presently employed as Biostatistics Developer at the Georgia Department of Public Health

16. Simin Ma
Graduated Summer 2023
Thesis topic: Machine Learning Methods For Decision Making Inference In Healthcare

Awards: Thos and Clair Muller Research Excellence award (2022)
Presently employed as Research Scientist at Microsoft Research

(B1.b) In Progress

17. Yujia Xie
Advisement began Fall 2020
Thesis topic: Distributed Computing with Application to Healthcare Optimization
Funding Source: Peterson Professorship (PI: N. Serban)
18. Guantao Zhao
Advisement began Spring 2022
Thesis topic: Machine Learning in Healthcare
Funding Source: CwC research gift (PI: N. Serban)
19. Amaya McNealey
Advisement began late Fall 2024

(B1.c) Research Study with Other PhD Students (those not listed in advisement above)

This list includes students who have started their PhD degree but not completed at Georgia Tech or/and they have worked on one particular collaborative paper but with a different primary advisor.

1. Jessica Heier Stamm (Advisor: Julie Swann)
Research Article: Quantifying and Explaining Accessibility with Application to the 2009 H1N1 Vaccination Campaign
2. Mallory Nobles (PhD not completed at GT)
Research Article: Measurement and Inference on Pediatric Healthcare Accessibility
3. Zihao Li (Advisor: Julie Swann)
Research Article: An optimization framework for measuring spatial access over healthcare networks
4. Matthew Lancer (PhD not completed at GT)
Research Topic: Transformation of Spatial Domain: Accounting for the Economic and Social Geographic Distances
5. John Simon Chow (Advisor: Paul Griffin)
Research Topic: Cost Analysis of Interventions for Reducing Severe Outcomes for Pediatric Asthma
6. Kevin Johnson (PhD not completed at GT)
Research topic: Pediatric Asthma Healthcare in the Medicaid Program
Awards: George Family Fellowship at GT (2014)
7. Ashkan Zakaryazad (PhD not completed at GT)
Research Topic: Health Analytics for Baseline Asthma Care and ICU Predictions
8. Yasin Cagatay Gultekin
Research topic: Bi-level Optimization with Application to Interventions to Improve Dental Care Access
9. Daniel Kim
Research topic: Mental Health Treatment Adherence for Medicaid-insured Children

(B2) M.S. Students

1. Karan Gandhi (with William B. Rouse) Fall 2007- Spring 2008
Research topic: Performance Study of Spatially-Distributed Service Enterprises
2. Kevin Johnson (with Julie Swann) Spring 2013- Summer 2014

Research topic: Improving Healthcare Delivery: Access and Outcomes
3. Hongzhang Shao (with Julie Swann) Summer 2015 & Fall 2015
Research topic: Inference on Adherence to Recommended Practices for Pediatric ADHD in the Medicaid System
4. Yuanyuan Lin Summer 2015 & Fall 2015
Research topic: Predictive Models for Forecasting ED patient volume
5. Gabriella Runnels Fall 2016 & Spring 2017
Research topic: Contraceptive provision practices for women with medical conditions that put them at high risk from an unintended pregnancy
6. Rodion Davelaar Spring 2017 & Summer 2017
Research topic: The cost-savings of the iEAT intervention
7. Shalini Solipuram, Spring 2021-Spring 2022
Research topic: Dissemination Tool for Dental Care Supply and Access in the United States
Funding Source: NIH Grant (PI: N. Serban)
8. Annalea Anderson,Spring 2021-Summer 2022
Research topic: Analysis of Dental Care Supply for Children in the United States
Funding Source: NIH Grant (PI: N. Serban)
9. Wanmeng Liu Fall 2021-Summer 2022
Research topic: Longitudinal Analysis of Mental Health Treatment
Funding Source: RWJF Grant & Mello Professorship(PI: N. Serban)
10. Katrine Pospichel, Spring 2021-Summer 2022
Research topic: Access to Pediatric Dental Care in the United States
Funding Source: NIH Grant (PI: N. Serban)
11. Ramsha Ali, Fall 2022-Spring 2023
Research topic: Mental Health Treatment using Markov Modeling
Funding Source: Peterson Professorship (PI: N. Serban)
12. Manvitha Kalicheti, Fall 2022-spring 2024
Research topic: Opioid Utilization after Trauma-related Hospitalization
Funding Source: CwC research gift (PI: N. Serban)
13. Priscilla Zhang, Spring 2023-Summer 2024
Research topic: Longitudinal Analysis of Mental Health Treatment for Medicaid-enrolled Children
14. Saranya Kavileswarapu, Fall 2023
Research topic: Comparing Access to Mental Health Access Across Southeast States
Funding Source: Peterson Professorship (PI: N. Serban)
15. Yuting Gu, spring 2024-Fall 2024
Research topic: Mental Health Outcome Analysis
Funding Source: Peterson Professorship (PI: N. Serban)
16. Joshua Caplan, Summer 2024-present
Research topic: Mental Health Treatment Pathway Anslysis
Funding Source: Peterson Professorship (PI: N. Serban)
17. Kaiwen Wang, Spring 2024
Research topic: Discrete Event Simulation for Access Modeling
Funding Source: Peterson Professorship (PI: N. Serban)
1. Kavya Venkateswaran, Fall 2024
Research topic: Understanding Care Patterns for Children with Complex Conditions
Funding Source: Peterson Professorship (PI: N. Serban)

(B3) Undergraduate Students

1. Jason Jisu Park Spring 2010

Awarded: President's Undergraduate Research Award - Spring 2010
2. Jennifer Sisson (with Julie Swann) Fall 2010-Summer 2011
Selected for the 6th Annual ACC Meeting of the Minds, University of Miami, FL, 2011
Awarded: President's Undergraduate Research Award - Spring & Summer 2011
3. Vidhi Shah Fall 2012
4. Courtney Huggins (with Julie Swann) Fall 2012
5. Kevin Johnson (with Julie Swann) Fall 2012-Spring 2013
6. Richard (Yuchen) Zheng (with Julie Swann) Fall 2013-Spring 2014
7. Alexander Terry (with Julie Swann) Fall 2013-Spring 2014
8. Pravara Harati Fall 2013-spring 2014
Awards: President's Undergraduate Research Award - Summer 2014
9. Sean Monahan Spring 2014-Spring 2017
Awards: 2016 Petit Undergraduate Research Scholar; 2016 Henry Ford II Scholar; President's Undergraduate Research Award - Fall 2016; 2017 COE Outstanding Undergraduate Research Award
10. Erin Lightfoot (with Julie Swann) Fall 2014
11. Alex Moran Fall 2014-Spring 2017
Awards: 2015 Henry Ford II Scholar; 2016 Petit Undergraduate Research Scholar; 2016 COE Outstanding Undergraduate Research Award;
12. Harshil Goel (with Paul Griffin) Summer 2015
13. Misha Dei Spring 2016-Fall 2016
14. Yuanheng Wang Spring 2016-Spring 2017
15. Preston Devaney (with Julie Swann) Summer 2016-Spring 2018
16. Anna Smith Summer 2016-Fall 2017
Awards: President's Undergraduate Research Award - Fall 2017
17. Pratik Khairnar (with Paul Griffin) Summer 2016
18. Shamsya Khan Fall 2016-Summer 2019
Awards: 2019 Outstanding Undergraduate Researcher Award
19. Christopher Bush Spring 2017-Spring 2018
20. Radhika Modi Spring 2017
21. Jose Manuel Munoz Elizondo Summer 2017-Spring 2019
22. Yujia Xie, Spring 2018-Summer 2020
23. Rwan Hayek, Summer 2018-Spring 2020
24. Casey Wood, Fall 2018-Spring 2019
25. Tina Lu, Fall 2018-Summer 2020
26. Hannah Murray, Fall 2018-Spring 2020
27. Hannah Li, Fall 2018-present
28. Grace Oberst, Fall 2018-Summer 2020
29. Zachary James, Spring 2019-present
30. James Kim, Fall 2019
31. Carl Liu, Fall 2019-Spring 2020
32. Minrui Liang, Fall 2019-present
33. Katrine Pospichel, Fall 2019-present
34. Udisha Bhattacharrya, Fall 2019-present
35. Ethan Channell, Fall 2019-present
37. Melody Shellman, Fall 2019-present
38. Aniruddh Hari, Fall 2019-Spring 2020
39. Lisha Yang, Summer 2020-Summer 2021
40. Christopher Larkins, Summer 2020
41. Marylyn Chen, Summer 2020-Spring 2021

42. Rohit Ramachandran, Spring 2021-Spring 2022
Funding Source: NIH (PI: N. Serban)
43. Neel R Edupuganti, Spring 2021-Spring 2022
Funding Source: NIH (PI: N. Serban)
44. Felice Xie, Spring 2021-Spring 2022
Funding Source: Mello & Peterson Professorship
45. Catherine Wang, Spring 2021-present
Funding Source: Mello & Peterson Professorship
46. Mert Akyurekli, Summer 2021-Spring 2022
Funding Source: Mello & Peterson Professorship
47. Jiaxi Yu Fall 2021-present
Funding Source: NIH & Peterson Professorship
48. Rohan Aluri Spring 2023-Summer 2023
Funding Source: NIH & Peterson Professorship
49. Megan Sun Spring 2023-Spring 2024
Funding Source: Health Analytics Research Gifts
Awards: IE-Pennington Undergraduate Research Award - Spring 2024
50. Vivek Inumella Spring 2023-present
Research for Credit Hours & Funding Source: Peterson Professorship
51. Yuting Gu Fall 2023
Funding Source: NIH & Peterson Professorship
52. Simona Ivanov Spring 2023-present
Funding Source: Peterson Professorship
53. Nandita Narayanan Spring 2024-Spring 2025
Funding Source: Peterson Professorship
Awards: President's Undergraduate Research Award - Spring 2025
54. Numaiya Hasan Fall 2024-present
Funding Source: Peterson Professorship
55. James Parry Fall 2024
Funding Source: Peterson Professorship
56. Sirish Sigili Fall 2024-present
Funding Source: Peterson Professorship
57. Sofia Parodi Fall 2024-present
Funding Source: Peterson Professorship
Awards: IE-Pennington Undergraduate Research Award - Spring 2024

(B4) Service on thesis or dissertation committees

1. Lisa M. Ehrman, Electrical and Computer Engineering (Advisor: Aaron Lanterman)
2. William Leven, Electrical and Computer Engineering (Advisor: Aaron Lanterman)
3. Jong Phil Kim, Industrial and Systems Engineering (Advisor: Antony Hayter)
4. Chen-ju Lin, Industrial and Systems Engineering (Advisor: Antony Hayter)
5. Jie Chen, Industrial and Systems Engineering (Advisor: Xiaoming Huo)
6. Shu-Chuan Lin, Industrial and Systems Engineering (Advisors: JC Lu and Paul Kwam)
7. Andrew Smith, Industrial and Systems Engineering (Advisor: Xiaoming Huo)
8. Soyoun Park, Industrial and Systems Engineering (Advisor: JC Lu)
9. Lulu Kang, Industrial and Systems Engineering (Advisor: Roshan Joseph Vengazhiyil)
10. Dongryeol Lee, Industrial and Systems Engineering (Advisor: Alexander Gray)
11. Soo-Hyun Kim, Industrial and Systems Engineering (Advisor: Ming Yuan)

12. Lingyan Ruan, Industrial and Systems Engineering(Advisor: Ming Yuan)
13. Jessica L. Heier Stamm, Industrial and Systems Engineering (Advisors: Julie Swann, Ozlem Ergun)
14. Naragain Jan Phumchusri, Industrial and Systems Engineering (Advisor: Julie Swann)
15. So Yeon Chun, Industrial and Systems Engineering (Advisor: Alex Shapiro)
16. Bo Shi, Mechanical Engineering (Advisor: Bojan Petrovic)
17. Chia-Jung Chang, Industrial and Systems Engineering (Advisors: Roshan Vengazhiyil, Jianjun Shi)
18. Carlo Davila Payan, Industrial and Systems Engineering (Advisor: Julie Swann)
19. Carlos Valencia, Industrial and Systems Engineering (Advisor: Ming Yuan)
20. Hyunwoo Park, Industrial and Systems Engineering (Advisor: Rahul Basole)
21. Benjamin Peters, Industrial and Systems Engineering (Advisor: Nagi Gebraeel)
22. Francisco Javier Castillo Zunino, Industrial and Systems Engineering (Advisor: Pinar Keskinocak)
23. Daniel Kim, Industrial and Systems Engineering (Advisor: Pinar Keskinocak)

(B5) Mentorship of postdoctoral fellows or visiting scholars

1. Yeliz Ekinci
Supervision Spring 2012-Spring 2013
Research topic: Forecasting and Replenishment Policy for ATMs
2. Monica Gentili
Supervision Fall 2013-Fall 2015
Research topic: Interventions in Improving Healthcare Access
Presently employed as Assistant Professor at University of Louisville
3. Ilbin Lee
Supervision Summer 2015-Summer 2017
Research topic: Longitudinal Healthcare Utilization: Profiling and Inference
Presently employed as Assistant Professor at Alberta School of Business
4. Amin Dehghanian
Supervision Fall 2019- Summer 2021
Research topic: Longitudinal Healthcare System Optimization
Funding Source: NIH (PI: N. Serban) & Pilot GT Grant (PI: D. Hughes)
5. John Asplund
Supervision Spring-Summer 2020
Research topic: Covid19 Projections and Modeling
Funding Source: NIH (PI: N. Serban) (PI: N. Serban)
6. Behshad Lahijanian
Supervision Fall 2022-Fall 2023
Research topic: Stochastic modeling for informing decision making in mental health treatment
Funding Source: CwC Research Gift & ISyE Postdoctoral Fellowship

VI. SERVICE

(A) Professional Contributions

1. Workshop organizer
• Organizer and co-chair of the *INFORMS Workshop on Data Mining, Artificial Intelligence and Healthcare*, Minneapolis, 2013.
Conference session & cluster organizer
• Organizer and co-chair (with M. Gentili) of a Scientific Contributed Session, *IEE Annual Conference*, 2014.

• Organizer and co-chair (with M. Gentili and J. Swann) of the Scientific Contributed Sessions, "Decision-Making for Population Health Outcome Interventions" and "Methodologies for Health Policy Making", *The Institute of Operations Research and the Management Sciences Meeting*, 2014.
• Organizer and Chair of the Scientific Contributed Session "Statistics in Service Science," *Joint Statistical Meeting*, Miami, 2011.
• Organizer and Chair of the Scientific Invited Session "Multi-level and multi-scale Spatial Modeling and Simulation," *Spring Conference on Statistics in Research and Technology*, 2008.
• Co-organizer (with Julie Ivy and Jing Li from the University of Michigan) of a series of invited sessions in Quality and Statistical Decision-Making in Healthcare Applications, *The Institute of Operations Research and the Management Sciences Meeting*, 2006.
• Organizer and Chair of the Scientific Invited Session "Nonparametric Function Estimation," *Eastern North American Region Meeting*, 2004.

2. Referee for technical journals
• Editor, *Annals of Applied Statistics* for the areas of physical sciences, engineering, and the environment 2014-2021
• Associate Editor, *Annals of Applied Statistics*, 2010-2014.
• Invited Reviewer for the following journals: *Statistics in Medicine, Bioinformatics,IIE Transactions, Journal of the Royal Statistical Society, Series B, International Journal of Statistics and Management Systems, Journal of Computational and Graphical Statistics, Journal of the American Statistical Association, Biometrics, Journal of Applied Statistics, Computational Statistics and Data Analysis, Psychometrika, Technometrics, Management Science, European Journal of Operational Research, Statistica Sinica, INFORMS Journal of Computing, Operations Research, Annals of Operations Research, Community Dentistry and Oral Epidemiology IEEE Journal of Biomedical and Health Informatics* and many others

3. Reviewer for funding organizations
• Reviewer of an NSF Engine panel
• 2022-2028 Standing reviewer NIH NIDCR panel
• 2022 Reviewer for the Pilot Grant Program of the Imlay Innovation Fund
• *Patient-Centered Outcomes Institute* (8 panel reviews)
• *National Science Foundation* (5 panel reviews)
• *National Institutes of Health* (10 panel reviews)
• *California Tobacco-Related Disease Research Program* (3 panel reviews)

(B) Public and Community Service

• Memmber of the Board of Scientific Counselors, National Center for Health Statistics (BSC, NCHS), Centers for Disease Control and Prevention (CDC), 2025-2027
• Member of the INFORMS Advisory Board 2024-2026
• Member of the Georgia APCD Data Release Review Committee Spring 2024-present
• Co-Lead of the Vision White Paper for the Pediatric Technology Center Pillar 2 - Patient-Centered Care Delivery 2023
• Member of the Georgia All-Payer Claims Database (GAPCD) Advisory Committee 2021-present
• Member of the Georgia Behavioral Health Reform & Innovation Commission 2020-2024
https://www.isye.gatech.edu/news/isye-professor-serve-state-health-reform-commission
• Serving in the Asthma Data and Evaluation Workgroup for the state of Georgia, January 2016-December 2016
• Served in the Academy of Medicine workshop on "Models of Care for High-need Patients", 2015.
• Served in the Institute of Medicine (IOM) workshop on "Engineering Optimal Health Care Scheduling", 2014.

• Served in the National Academy of Engineering (NAE) & IOM Meeting on "Systems Approaches for Health Innovation", 2013
• Served in the NAE workshop on "Harnessing Operational Systems Engineering for Peace building", 2012

(C) Institute Contributions

• Chair Search Committee, ISyE 2024
• Georgia Tech Health and well-being of people and communities steering committee 2023-2024
• ISyE DEI committee 2022-2024
• Georgia Tech nominating committee 2022-2023
• Chair Search Committee, ISyE 2021-2022
• College of Engineering, RP&T, 2020-2022
• ISyE Faculty Advisory Committee, 2020-2022
• Mentoring Committee, ISyE 2019-2021
• Faculty Search and Recruiting, 2015-2018
• Search Committee for ISyE Chair, 2013-2014
• College of Engineering, RP&T for Assistant Professors, 2012-2014
• Awards Committee, ISyE 2007-2008 & 2013-2014
• PhD Comprehensive Exam Committee (ISyE Statistics Track),2007, 2010, & 2012
• Chair of the ISyE statistics seminar series, 2008-2009 & Spring 2014
• Search Committee for ISyE Chair, 2010-2011
• Chair of the Awards Committee, ISyE 2008-2009