Daniela Andrea Hurtado Lange
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Last update: December 1, 2019

Education

Graduate studies:

- Ph.D. in Operations Research (student) *(August 2016 to date)*
  Georgia Institute of Technology
  Advisor: Siva Theja Maguluri (Department of Industrial and Systems Engineering)

- Master of Science in Industrial Engineering *(2016)*
  Pontificia Universidad Católica de Chile
  Thesis title: "Evaluation of uncertainty sets in a GI/G/1 queue by comparison with simulation, and search for simplification of the method."
  Advisor: Pedro Gazmuri (Department of Industrial and Systems Engineering)

Undergraduate studies:

- Industrial engineer with Diploma in Math engineering *(2016)*
  Pontificia Universidad Católica de Chile
  Conferred with maximum distinction

- Licenciate in Engineering science *(2013)*
  Pontificia Universidad Católica de Chile
  Conferred with distinction

- Bachelor in Engineering *(2013)*
  Pontificia Universidad Católica de Chile
  Conferred with distinction

Scholarships and awards

- Tennenbaum fellowship
  Georgia Tech *(Fall 2016 to Fall 2018)*

- Scholarship for graduate studies in Chile and abroad, BECAS CHILE
  Conferred by Chilean government *(June 2018 to date)*

- ARC-TRIAD Student Fellowships for Spring 2019
  Georgia Tech *(Spring 2019)*

Publications

- Heavy-traffic Analysis of Queueing Systems with no Complete Resource Pooling. Hurtado-Lange D., Maguluri S.T. *(Accepted in SIGMETRICS 2020 and Submitted to Mathematics of Operations Research).* Available in `https://arxiv.org/abs/1904.10096`
- Transform Methods for Heavy-Traffic Analysis. Hurtado-Lange D., Maguluri S.T. *(Submitted to Stochastic Systems).* Available in `https://arxiv.org/abs/1811.05595`

Research experience

Research assistant

- Georgia Institute of Technology *(January 2018 to date)*
  Advisor: Siva Theja Maguluri (Department of Industrial and Systems Engineering)
- Pontificia Universidad Católica de Chile
  - Master's thesis *(2015-2016)*
    "Evaluation of uncertainty sets in a GI/G/1 queue by comparison with simulation, and search for simplification of the method."
    Advisor: Pedro Gazmuri (Department of Industrial and Systems Engineering)
  - Undergraduate research *(August 2012 to December 2012)*
    "Discontinuous Petrov-Galerkin method applied to the Helmholtz equation"
    Advisor: Norbert Heuer (Math Department)

Visiting Ph.D. student *(July 2018)*
The Chinese University of Hong-Kong, Shenzhen
Institute for Data and Decision Analysis (iDDA)

Research mentor

- Milton Pagan, University of Puerto Rico-Mayaguez *(September 2018 to date)*
- Anabel Rivera, University of Illinois at Urbana-Champaign *(May 2018 to July 2018)*
  Visiting student to Georgia Institute of Technology, through SURE program.

Poster presentations

- International Workshop on Recent Progress in Data, Models and Decisions *(July 2018)*
  Held by iDDA (Institute for Data and Decision Analytics) of The Chinese University of Hong Kong, Shenzhen.
  Title: "A unified view of the drift method and the MGF method for heavy-traffic analysis"

- ACM SIGMETRICS 2018 Poster Session *(June 2018)*
  Title: "A Novel View of the Drift Method for Heavy-Traffic Limits of Queuing Systems"
  Co-authored with and presented by Siva Theja Maguluri

- DCL Student Spring Symposium, Poster Session *(March 2018)*
  Held by Decision and Control Laboratory of Georgia Institute of Technology
  Title: "Performance Analysis for Data Centers: A Novel Heavy-Traffic Approach"

Teaching experience

Teacher assistant

- Department of Industrial and Systems Engineering, Georgia Institute of Technology
  - Special Topics - Math of OR, Ph.D. level *(Fall 2018)*
  - Probabilistic models, Master's level *(Fall 2017)*
  - Simulation, Analysis and Design, Undergraduate level *(Fall 2016)*
- Department of Industrial and Systems Engineering, Pontificia Universidad Católica de Chile
  - Stochastic models I, Undergraduate level *(2012-2014)*
  - Stochastic models II, Master' s level *(2014-2015)*
  - Marketing, Master's level *(2013-2014)*
- Department of Math, Pontificia Universidad Católica de Chile
  - Linear algebra, Undergraduate level *(2011-2013)*
  - Pre-calculus, Undergraduate level *(2012)*
  - Introduction to probability and statistics, Undergraduate level *(2015)*

Instructor
Department of Industrial and Systems Engineering, Pontificia Universidad Católica de Chile
Stochastic Models I, Undergraduate level *(March 2016 to July 2016)*

Work experience

- Collaboration in the creation of a price policy for the surgical division of Alcon Chile
  Part-time job *(September 2014 to June 2015)*
- Internship in the pharmaceutical division of Alcon Chile
  Full time *(December 2013 to February 2014)*

Non-academic activities

- Talent+Inclusion Program, School of Engineering, Pontificia Universidad Católica de Chile *(2014-2015)*
  Tutor for students who enter to PUC via special admission. They come from low quality high schools and usually have social and economic problems. The objective of the tutor is to help them on settling down in college during their first year.

- Academic tutor and coordinator of math tutors, CARA UC, Pontificia Universidad Católica de Chile *(2013 to 2015)*
  CARA UC is a support center from Pontificia Universidad Católica, which helps students when they have academic or vocational problems. Specifically, tutors help students who do not know how to study or do not understand certain subjects.

- Swimming team member at Pontificia Universidad Católica de Chile *(2010 to 2014)*

- Team member of "Recreación en tu barrio", JUNAEB, Education Ministry of Chile *(2007 to 2010)*
  JUNAEB is a government center which cares of scholar needs for public schools. "Recreación en tu barrio" was a traveling fair that used to bring leisure activities that are usually expensive to parks in the surroundings of vulnerable neighborhoods.

- Dancer and singer in Rosales de Buin *(2002-2011)*
  Rosales de Buin was a team of dancers and singers whose focus was on music that typical Chilean tribes used to play on their parties. This was a volunteer activity.