

IGNACIO ERAZO

Ph.D. student in Operations Research, minor in Machine Learning

@ierazo@gatech.edu Atlanta, USA <https://sites.google.com/view/ignacio-erazo/>
<https://www.linkedin.com/in/ignacio-erazo-neira-256b03160/>



EDUCATION

Ph.D. in Operations Research with minor in Machine Learning

Georgia Institute of Technology

August 2019 – Expected May 2023

GPA 4.0/4.0

M.Sc. in Operations Research

Georgia Institute of Technology

August 2019 – December 2021

GPA 4.0/4.0

B.Sc. in Civil Industrial Engineering

University of Concepcion, Chile

March 2014 – July 2019

GPA 6.7/7.0, rank 1

WORKING EXPERIENCE

Research Assistant

Georgia Institute of Technology

01/2021 – Ongoing Atlanta

- Research under the guidance of Prof. David Goldsman and Prof. Alejandro Toriello.

Teaching Assistant

Georgia Institute of Technology

08/2019 – Ongoing Atlanta

- Head TA for graduate Transportation & Supply Chain ISyE 6203 class (Spring 2022).
- Head TA for graduate simulation course ISyE 6644 for both online and Atlanta campus (Summer 2020, Fall 2020, Spring 2021).
- TA for undergrad Optimization and Probability courses in ISyE (Fall 2019, Spring 2020).

Intern at the Inventory Optimization Team

BHP Billiton

01/2019 – 03/2019 Atlanta

MY LIFE PHILOSOPHY

"If you really want to do something, you'll find a way. If you don't, you'll find an excuse."

MOST PROUD OF



Best GPA 2014 Class

I received this prize every year (2014,2015,...,2019).



First place in 2019 "University of Concepcion" programming Competition

Category "Non Computer Science Major". Competition required to solve problems with efficient algorithms coded in Python.



Leader of World Finalist Team in Simio Competition

Fall 2016 and Spring 2017.



Part of the College of Engineering Graduate Student Advisory Council
Selected by the chair to be the ISyE representative in the council.



Stewart Fellowship in Georgia Tech

STRENGTHS

Hard-working Leader Eye for detail

Responsible Eager to Learn

Python Gurobi Optimization

Statistical Analysis Simulation Models

LANGUAGES

Spanish ●●●●●

English ●●●●●

French ●●●●●

- Developed a new automatized dashboard in Power BI to show results for stakeholders of the supply team (saved 2 days of work a month).
- Proposed and implemented a new inventory classification system leading to inventory savings of +5 Million USD.

WORKING PROJECTS

Submodular Dispatching Optimization

Joint work with Prof. Alejandro Toriello

Proposition of a general continuous-time dispatching model, with applications in Same-Day Delivery, Machine Scheduling, Warehouse Management, among others. Study of complexity and solution methods.

Efficient Confidence Intervals for the Difference of Two Bernoulli Distributions' Success Parameters.

Joint work with Prof. David Goldman

Actual work is being done for the correlated scenario.

Optimal Frank-Wolfe algorithm for Stochastic Optimization

Joint work with Hassan Mortagy, Filipe Cabral and Prof. Siva Maguluri

Proposition of a new Frank-Wolfe-based algorithm with improved convergence rate.

Improving efficiency of the donation system in the US

Joint work with Prof. David Goldman and Prof. Pinar Keskinocak

Use of data to support the creation of a model that helps to reduce the amount of lost organs during the offering process by establishing how to do the offers according to the organ information.

PUBLICATIONS





Journal Articles

- Erazo, I., & Goldman, D. (2021). Efficient confidence intervals for the difference of two bernoulli distributions' success parameters. *Journal of Simulation*, 1–18. doi:<https://doi.org/10.1080/17477778.2021.1955629>

Conference Proceedings

- Erazo, I., & De la Fuente, R. (2021). A simulation-based approach to compare policies and stakeholders' behaviors for the ride-hailing assignment problem. In *2021 winter simulation conference (wsc)* (Yet to be published).
- De la Fuente, R., Erazo, I., & Smith, R. L. (2018). Enabling intelligent processes in simulation utilizing the tensorflow deep learning resources. In *2018 winter simulation conference (wsc)* (pp. 1108–1119). doi:10.1109/WSC.2018.8632539

SOFTWARE

Gurobi in Python	
Python	
Simio Simulation	
R	

REFERENCES

Prof. David Goldman

@ Georgia Institute of Technology

✉ sman@gatech.edu

Prof. Alejandro Toriello

@ Georgia Institute of Technology

✉ atoriello@isye.gatech.edu

Prof. Rodrigo de la Fuente

@ University of Concepcion

✉ radelafu@ncsu.edu