Javier Zapata

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https://github.com/javzapata

EDUCATION

University of California, Santa Barbara Santa Barbara, CA
PhD in Statistics and Applied Probability (GPA: 3.94/4.00) 2015-Current
Advisor: Prof. Sang-Yun Oh

University of Chile Santiago, CHILE
Industrial Engineer (Final Grade: 7.0/7.0) 2005-2011
& *Bachelor of Engineering Science in Industrial Engineering*

Colegio Academia de Humanidades Santiago, CHILE
High School Diploma 2001-2004

CURRENT RESEARCH PROJECTS

- Developing a brain connectivity inference method combining graph theory and functional data analysis. We will apply it to fMRI data from the Human Connectome Project. Collaboration with Professors S. Oh and A. Petersen at UCSB.

- Working on an autoencoder for unsupervised interpretable feature learning in art paintings. Collaboration with Professor A. Cifuentes at Columbia University.

JOURNAL AND CONFERENCE PAPERS

- J. Zapata and A. Cifuentes. "On the Stability of Synthetic CDO Credit Ratings". *International Finance, 2016.* (link: http://onlinelibrary.wiley.com/doi/10.1111/infi.12086/abstract)

HONORS & AWARDS

University of Chile Santiago, CHILE
Industrial Engineering Department, School of Engineering
- Summa Cum Laude Graduated & Ranked 1st in the class of 2012 2012
- Best Heuristic Algorithm of the Operations Engineering Class Fall 2010
- Best Teaching Assistant Award ("*Ayudante Destacado*") 2010
- Dean's List ("*Alumno Destacado*") 2006 - 2011

Colegio Academia de Humanidades Santiago, CHILE
- High School fellowship for outstanding academic performance 2001-2004

PROFESSIONAL EXPERIENCE

SimpliRoute Santiago, CHILE
Data Scientist - Intern July 2017 - September 2017
- Improved the company's analytics technologies by developing a predictive model of the logistics service time of the clients integrating mobile GPS and delivery planning datasets.

Ministry of Finance, Sovereign Wealth Funds Santiago, CHILE
International Finance Analyst 2012 - 2013
- Served as research assistant for the financial investment committee responsible for advising the Minister of Finance regarding the funds' investment policy.
- Improved the investment policy analytics of the SWF's by developing an asset allocation model for the investment policy of the Economic and Social Stabilization Fund (US$15 billion) and studying the optimal size of the Pension Reserve Fund's investment portfolio (US$5.8 billion).
- Enhanced productivity and reduced operational risk by developing an information database system for report automation and data analysis.

Center of Finance, University of Chile Santiago,CHILE
Research Scientist, Advisor: Arturo Cifuentes. 2011

- Conducted a research dissertation titled *"Stability Analysis of Credit Ratings Applied to Synthetic CDOs"*. The study unveils the lack of accuracy of the synthetic CDO credit ratings during the subprime crisis.
- Implemented a methodological framework to implement a real estate index for the Chilean housing market.

TEACHING EXPERIENCE	**University of California, Santa Barbara**	Santa Barbara, CA

Head Teaching Assistant   2018-Current
- PSTAT 10 - Introduction to Computing for Data Science (Spring '18)
  - Responsible for coordinating four TAs and grading in a class of 300 students.

Teaching Assistant   2015-2018
Upper Division Courses:
- PSTAT 109 - Statistics for Economics (Fall '15)
- PSTAT 120A - Introduction to Probability (Winter '16)
- PSTAT 160AB Stochastic Processes (Winter & Spring '16, Winter '18)
- PSTAT 194 - Apache Spark Programming (Winter '18)

Graduate Courses:
- PSTAT 274 - Time Series (Fall '16, Winter'17, Spring '17)
- PSTAT 231 - Data Mining (Fall '17)

University of Chile, School of Engineering   Santiago, CHILE
Teaching Assistant   2009 - 2011
Upper Division Courses School of Engineering, University of Chile, CHILE
- IN47B - Operations Engineering
- IN56A - Engineering Economy and Financial Management
- IN56B - Financial Engineering

Graduate Courses:
- IN7A9 - Corporate Finance

OTHER POSITIONS & ACTIVITIES	**University of California, Santa Barbara**	Santa Barbara, CA

Graduate Student Representative   2017-Current
- Participated in the faculty meeting and help coordinating the Department of Statistics and Applied Probability (PSTAT).
- Coordinated recruiting and social events for the PSTAT graduate community.
- Participated in the UCSB Graduate Student Association meetings to discuss campus-wide issues.

PROGRAMMING SKILLS

Scientific Computing: R, Python, Matlab, C/C++, Java
Cluster Computing: Apache Spark
Database: SQL, PostgresSQL

LANGUAGES   **Spanish:** Native Speaker   **English:** Fluent

INTERESTS   Listening to music, hiking, cooking and dancing salsa.