6550 El Colegio Rd., Apt 5104

Santa Barbara, CA 93106

+1-(805)-453-9448 & zapata@pstat.ucsb.edu

RESEARCH INTERESTS

Applied Statistics, Machine Learning, Information Theoretic Learning, High-Dimensional Statistics, Graphical Models

EDUCATION

University of California, Santa Barbara

Santa Barbara, CA 2015-Current

PhD in Statistics and Applied Probability (GPA: 3.94) Advisors: Prof. Sang-Yun Oh and Prof. Alexander Franks

University of Chile

Santiago, CHILE

Industrial Engineer (Final Grade: 7.0/7.0)

2005-2011

& Bachelor of Engineering Science in Industrial Engineering

${\bf PROFESSIONAL~Simpli Route}$

Mountain View, CA

EXPERIENCE 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.
- Mined massive datasets looking for data-driven insights for business strategies.

Ministry of Finance, Sovereign Wealth Funds (SWF)

Santiago, CHILE 2013 - 2015

International Finance Analyst

- Enhanced productivity and reduced operational risk by developing an information database system for report automation and data analysis.
- Improved the investment policy analytics of the SWF's by implementing 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)
- Performed quantitative analyses for the investment policy of the SWFs and its financial investment committee.

$\textbf{Fischer \& Zabala} \; (\textbf{Financial asset manager})$

Santiago, CHILE

2012

Quantitative Financial Analyst

- Contributed to the structure and investment guidelines of a complex financial mortgage-backed security deal (US\$60 million) for the Chilean pension funds by developing a credit risk model.
- Participated actively in roadshow meetings by addressing quantitative questions of potential investors.
- Responsible for daily monitoring of two high-yield fixed income funds.

Center of Finance, University of Chile

Santiago, CHILE

Research Scientist, Advisor: Arturo Cifuentes.

2011

- Conducted Monte Carlo simulation studies on credit ratings and synthetic CDOs.
- Developed a methodological framework to implement a real estate index for the Chilean housing market.

TEACHING EXPERIENCE

University of California, Santa Barbara

Santa Barbara, CA

Teaching Assistant

2015-Current

<u>Upper Division Courses</u>: Statistics for Economics (Fall '15), Introduction to Probability (Winter '16), Applied Stochastic Processes (Winter & Spring '16), Introduction to Mathematical Finance (Spring '16).

<u>PhD Courses</u>: Time Series (Fall '16, Winter'17, Spring '17) and Data Mining (Fall '17).

University of Chile

Santiago, CHILE

Teaching Assistant

2009 - 2011

<u>Upper Division Courses:</u> Financial Management, Marketing Engineering, Operations Engineering

TECHNICAL STRENGTHS

Scientific Programming: R(expert), Python(expert), Matlab, C/C++, Java Database: SQL, PostgresSQL

Languages: English (fluent), Spanish (native)

Relevant PhD Coursework: Applied Statistics, Theoretical Statistics, Stochastic Processes, Machine Learning, Data Science, Data Mining, Probabilistic Graphical Models and Functional Data Analysis.

JOURNAL AND CONFERENCE PAPERS

- (1) 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)
- (2) J.Zapata and A. Cifuentes. "Dissecting Abacus: Risks That Investors Should Have Seen". Accepted for Presentation In: *Macrotheme Finance and Investments Conference in Paris*, 2012.

HONORS & AWARDS

University of Chile

Santiago, CHILE

Industrial Engineering Department, School of Engineering

- Summa Cum Laude Graduated & Ranked 1^{st} 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

INTERESTS

Listening to music, dancing Salsa, and hiking.