Francisca Quijada Dibarrart

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Presentation

Industrial Engineer and bachelor's of Engineering Sciences. Currently a PhD student of Industrial Engineering at Arizona State University. Research interests in statistical learning, data mining and optimization related applications in the fields of logistics and supply chain management.

Education

2019 - Current Date	Industrial Engineering - Ph.D Student Ira A. Fulton Schools of Engineering, Arizona State University, U.S
2011 - 2017	Industrial Engineering - Professional Degree Specialization in Operations Management Faculty of Engineering & Applied Sciences, Universidad de Los Andes, Chile Thesis: *Data Mining Approach to Predict Import Container Dwell Times.*
2011 - 2016	Engineering Sciences - Bachelor's Degree Faculty of Engineering & Applied Sciences, Universidad de Los Andes, Chile

Work Experience

01/2021 - Current Date	Research Assistant, *International Logistics and Productivity Laboratory, Arizona State University* Conducting research related to supply chain design and process monitoring for agricultural fresh produce. Assistance in the planning and coordination of on going projects, which are related to optimization and logistics in agriculture.
05/2020 - 12/2020	Research Assistant, *Industrial Assessment Center (IAC), Arizona State University* Conducted research related to manufacturing process monitoring and quality control. Performed energy assessments by analyzing individual consumption patterns of companies and making data-driven recommendations for reducing their electricity bills.
01/2020 - 05/2020	Graduate Teaching Assistant *Ira A. Fulton Schools of Engineering, Arizona State University* Teaching assistant for the course IEE 300, Economic Analysis for Engineers, undergraduate course on financial project evaluation. In charge of grading weekly quizzes, mid term evaluations, attending lectures and conducting weekly office hours.
02/2018 - 01/2019	Simulation and Optimization Engineer, *Planning and Supply Department, Empresa Nacional del Petróleo (ENAP)* Responsible for conducting sensitivity analysis using a simulation model of the company's logistic system for supporting strategic investment decision-making. In addition, in charge of applying a vessel routing optimization model, for the monthly planning of ENAP's vessel fleet to supply oil-derived products throughout Chilean ports. For such purposes, GAMS optimization software and Arena simulation software were used.
01/2017 - 01/2018	Research Assistant, *Faculty of Engineering, Universidad de Los Andes* Research project involving the application of analytics to Port Logistics. Specifically, applied advanced statistical learning methods to predict import container dwell times. Following, developed and evaluated the performance of several heuristic algorithms to target the container stacking problem in operations research. Implemented in R and Python.
12/2016-03/2017	Internship *Operational Risks Department, ENAP Sipetrol S.A.* Provided assistance with updates on the quantification of operational risks existing at production facilities and risk identification in an Oil & Gas production project in Southern Argentina (PIAM).
2014-2016	Teaching Assistant, *Faculty of Engineering, Universidad de Los Andes* Imparted problem solving oriented classes, once per week and provided support to Professors in the planning and supervision of student evaluations for several Engineering core courses: Applied Statistics (2016-2017, 3 consecutive semesters), Theory of Probability (2015, 2 consecutive semesters), Calculus I (1 time, summer course). Provided assistance in planning, supervision and grading of student evaluations for the following courses: Logistics (2016, 1 semester), Data Mining for Business Analysis (2016, 1 semester), Operations Management applied to Services (2017, 1 semester), Applied Statistics (2014-2017, 5 consecutive semesters), Calculus II, Calculus I and Introduction to Calculus (throughout 2014-2017 the course assisted varied from semester to semester).
January 2013	Internship, *INGEVEC S.A.* One month internship inside a construction building. Assisted in the revision of electrical appliances and finishing work prior to presenting newly constructed apartments to a real estate company.

Conferences

01/2018	Speaker: *Data Mining Approach to Predict Import Container Dwell Times.* Business Analytics for Finance and Industry (BAFI) 2018, University of Chile, Santiago, Chile.
11/2017	Speaker: *Data Mining Approach to Predict Import Container Dwell Times.* Chilean conference on Operations Research (OPTIMA) 2017, Adolfo Ibáñez University, Viña del Mar, Chile.

Papers

Maldonado, S., González-Ramírez, R. G., Quijada, F., & Ramírez-Nafarrate, A. (2019). Analytics meets port logistics: A decision support system for container stacking operations. *Decision Support Systems*, 121, 84-93.

Other

Languages	Spanish	*Mother tongue.*
	English	*Toefl iBT score 108.*
Programming Languages	R, Python	
Volunteering	Math tutor for middle, high school, and first year engineering undergraduate students. During the second half of 2011, at the Santiago Municipality, for middle school students that were affected by the academic year disruption in public schools during the Chilean Penguin's Revolution. During 2013, as a Calculus tutor on a mathematics leveling program, organized by Universidad de Los Andes's student council, designed for incoming freshman students, with underprivileged backgrounds. In 2014, via Formando Chile, non profit organization, for first and second grade students at a school located in La Pincoya, Santiago, for a period of approximately 3 months. Last, in 2016 as part of a team of Engineering students that imparted math tutorship on a public school in La Florida, Santiago, for a period of 6 months.	