SEBASTIAN GAETE

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EDUCATION

Master of Science in Computer Science *Aug 2022 - May 2024*
University of Texas at Austin *GPA: 3.8/4.0*

Master of Engineering *Jan 2017 - Jan 2018*
Pontificia Universidad Católica de Chile

Dual Degree with Master of Engineering, Major in Applied Mathematics *Aug 2013 - Jun 2015*
École Centrale de Lille at France

B. in Industrial Civil Engineering, Major in Information Technologies *Mar 2011 - Dec 2016*
Pontificia Universidad Católica de Chile

WORK EXPERIENCE

LATAM Cargo *Miami, FL*
Network and Operations Senior Analyst, Strategic Planning *Aug 2019 - Jul 2022*

- Developed and executed Python-based solutions to adhere to crew regulations and optimize crew shift distribution.
- Constructed and implemented datasets to support SQL queries, resulted in a 10% increase of the fleet utilization.
- Implemented data-driven forecasting for unscheduled maintenance failures in the cargo fleet, achieving a 7% reduction in maintenance hours thanks to preventive maintenance measures.

LATAM Airlines Group *Santiago, Chile*
Strategic Sourcing Analyst. Ranked 1st among procurement and finance analysts. *Jan 2018 - Sep 2019*

- Designed and executed a fuel import project in Brazil, which is the company's largest market. The initiative resulted in savings of $55M USD for LATAM and $165M for the Brazilian jet fuel industry.
- Developed fuel optimization models for flight routes, saving $10M and significant reductions in CO_2 emissions.

SKILLS

Programming Languages: Python, C++, C, Debugger Use (gdb), Java, TypeScript, OpenGL, SQL, Linux (kernel/user mode) and Unix shell, R, VBA, Open Source (GitHub/ GitLab)
Languages: Native Spanish speaker, fluent in English and French.

PROJECTS

Black-Box Adversarial Attacks against Models of Code *Feb 2023 - Apr 2023*
- Implemented and analyzed a generalizable black-box attack against models of code. [Code][Report]

Frequency Based Histogram Query Optimizer *Jan 2023 - Apr 2023*
- Development of a Frequency Based Histogram Query Optimizer for Efficient Join Order Selection.[Code][Report]

RESEARCH EXPERIENCE

Pontificia Universidad Católica de Chile, *Graduate Research* *Aug 2016 - Jan 2018*
- Assessed the innovation and barriers of Chilean SMEs using data from Chile's national surveys. [Thesis]

Pontificia Universidad Católica de Chile, *Research Assistant* *Jan 2017 - Aug 2017*
- Designed an entrepreneurship index following the OECD standards for ASELA.

Ecole Centrale de Lille at France, *Undergraduate Research* *Jan 2016 - Jun 2016*
- Implemented solutions through linear programming to optimize the scheduling of train conductors at SNCF.

LEADERSHIP

Pontificia Universidad Católica de Chile *May 2011 - Dec 2016*
- Teaching Assistant for Introduction to Programming, Linear Algebra, Calculus III, Marketing and Time Series.

Ecole Centrale de Lille at France *Jan 2014 - Dec 2014*
- President of University International Students Association. Led a team of 6 people responsible for assisting the university's international students.