# Juan Pablo Cantillana

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#### Research Interests

Routing Methods, Machine Learning, Logistics and Deliveries, Mathematical Modeling, Industrial applications.

### Experience

Vienna, AT	Department of Business Decisions and Analytics, University of Vienna
2024 -	$Research\ Staff-Prae-Doc.$
2025 -	Lecturer of Transportation Logistics for Bachelors.
Zurich, CH	Department of Engineering, Nezasa
2023 - 2024	$Manager-Research\ Engineer.$
2020 - 2023	Optimization Engineer for design and development of product TripOptimizer.
Rancagua, CL	Department of Industrial Engineering, Universidad de O'Higgins
2021 - 2021	Lecturer of Applied Statistics for Bachelors.
Santiago, CL	Department of Industrial Engineering, Universidad de Chile
2019 - 2020	Research Assistant for last-mile delivery project.

#### Education

Vienna, AT	Doctorate in Business Analytics, Logistics and Operations Research
2024 -	University of Vienna
Santiago, CL	Master of Science in Operations Management
2018 - 2020	Universidad de Chile
Santiago, CL	Bachelor of Science in Industrial Engineering
2013 - 2018	Universidad de Chile

### Work in Progress

Learning the Ng-path relaxation in BPC for the CVRPTW

With Christian Tilk, funded by FWF project Maschinelles Lernen in BPC für Tourenplanungsprobleme.

Design of a PVRP Heuristic for Parcel Deliveries in a Metropolitan Area

With Fernando Ordóñez, and Cristián Cortés, funded by Agrosuper TripOptimizer: An optimization-based for trip planning

Main work of José Miguel González, with Fernando Ordóñez, and Cristián Cortés

# Conferences and Workshops

2025 Trento	EURO Working Group on Vehicle Routing and Logistics Optimization VEROLOG
	presenting Learning the Ng-path relaxation in BPC for the CVRPTW.
2025 Paris	School on Column Generation.
2025 Traunsee	Complex Networks: Analysis and Modelling their Dynamics by IAT.
$2024~\mathrm{Krems}$	ÖGOR Summer-School for PhD-candidates and Post-Docs.
2024 Rancagua	International Workshop on Bilevel Optimization IWOBIP.
2023 Santiago	IFORS, presenting Design of PVRP heuristic for parcel deliveries in a metropolitan
	area.

## **Technical Skills**

 $\label{eq:programming} Python \ (NumPy, \, PyTorch, \, Scikit-learn), \, R, \, C++, \, SQL.$ 

Optimization Linear/Integer Programming, Metaheuristics, Heuristic Design.

Areas Machine Learning for Combinatorial Optimization, Routing Algorithms, Logistics,

Mathematical Modeling.

Tools Git, Linux, LATEX, NumPy, PyTorch, Scikit-learn, Gurobi/CPLEX/SCIP/Coin-OR,

Docker.

## Internships

2019 Santiago Experian: Updating implementation of Predicta model for risk assessment.

2018 Rancagua Agrosuper: Optimize product assignment on the 1st mile.

2025 Malloa Agrofoods: Statistical process control and documentation of maintenances.

#### Languages

Spanish (Native) English (B2) German (B1)