Nicolas Corvol

Engineering student specializing in Operations Research, seeking a PhD opportunity in optimization and machine learning.

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EDUCATION

Conservatoire National des Arts et Métiers

Sep. 2024 – Mar. 2025

Master Parisien de Recherche Opérationnelle (MPRO)

Paris, France

• Coursework: Stochastic Optimization, Mathematical Programming, Deep Learning for Combinatorial Optimization, Decomposition Methods, Metaheuristics, Constraints Programming, Scheduling, Graph Theory.

Ecole Nationale des Ponts et Chaussées

Sept. 2021 – Dec. 2025

Master's degree in mathematics and computer Science specialized in Optimization.

Paris, France

• Coursework : Operations Research, Convex Optimization, Stochastic Processes, Software Development, Game Theory, Machine Learning, Data Science for Business.

CPGE Lycée Charlemagne (MPSI/MP*)

Sept. 2019 – Jun. 2021

Sept. 2011 – Jul. 2019

 $Two-year\ intensive\ preparatory\ program\ in\ Mathematics\ and\ Physics.$

Paris, France

Lycée Sevigné
Scientific baccalaureate with european section, highest distinction.

Paris, France

WORK EXPERIENCE

Padam Mobility

Feb 2024 – Aug. 2024

Operation Research Intern

Paris, France

- Developed a multi-criteria algorithm in Cython, improving parking selection efficiency. Currently in production running daily.
- Analyzed and reported performance metrics of the metaheuristic.
- Modeled and implemented MILP for bus stop optimization, enhancing route efficiency. Project presented at the ROADEF 2025, currently in production running daily.

Polytechnique Montreal, CIRELT

Jul. 2023 – Dec. 2023

Research Assistant (SCALE AI Thibaut Vidal's team)

Montreal, Canada

- Conducted a research project in machine learning and optimization using PyTorch.
- Developed an end-to-end pipeline integrating NLP, neural networks, and optimization for portfolio optimization.

Academic Project

Air Liquide | Robust Optimization

Jan. 2023 – Jun. 2023

- Developed robust optimization models for managing uncertainty in renewable energy and hydrogen production.
- Applied robust optimization methods to plan green hydrogen production under uncertainty.

Smart Seating Plans for weddings

Jan. 2022 – Jan. 2023

• Built a web application using MILP to optimize wedding seating arrangements, maximizing guests' satisfaction.

Leadership & Volonteering

ENPC Teaching and Research Council | Member

Jan. 2022 - Dec. 2024

• Represented student interests in weekly meetings with school administration.

Student Council of Ecole Nationale des Ponts et Chaussées | President

Jan. 2022 – Jan. 2023

• Managed an €200,000 budget, leading a team of 18 to organize events for 400+ attendees.

Skills, Languages & Interests

Programming Languages: Python, C++, Julia, SQL, R

Tools: GitHub, LATEX, CPLEX, Gurobi, PyTorch, NumPy, Django

Languages: French (Native), English (Fluent, TOEIC 885/990), Spanish (Intermediate, B1)

Hobbies: Cycling - Rugby (part of the Ponts' school team) - Tennis (Competitive level) - Running