

Augustin Bresset

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SUMMARY

Passionate about research at the intersection of **mathematics**, **optimization**, and **computer science**. Currently pursuing a dual degree in **Data Science at École Polytechnique** and **Engineering at Télécom SudParis**. Aspiring to pursue a **PhD** focused on mathematical optimization and machine learning.

WORK EXPERIENCE

Software Engineer Intern - Rubicon (Bangkok) May 2025 - Aug 2025 (*Gap Year*)

- Sole developer rebuilding the company's ERP (40 employees) from scratch in **Odoo 18 Community**.
- Designed scalable **database schemas** (100K+ records) and developed **10+ custom modules** for pricing, production, and document management.
- Built automated **data import pipelines** to migrate large datasets from legacy systems.

Research Intern - ENSTA Paris (Palaiseau, France) Sept 2024 - Feb 2025 (*Gap Year*)

- Designed a prototype **Python framework** to standardize the handling of heterogeneous robotic datasets (**ROS bags**, **KITTI format**, etc.).
- Worked with **ROS** and **PyTorch** for data preprocessing and model testing within the laboratory's research environment.

Software Intern - Upfund (Paris, France) Jun 2023 - Aug 2023

- **Upfund** combines geospatial data and AI to help retail professionals identify optimal business locations.
- Built an **AI-powered map assistant** using **Django**, **Angular**, **OpenAI GPT API**, and **OpenStreetMap**, enabling users to perform complex location-based queries.
- Delivered a functional prototype presented to clients at the end of the internship.

EDUCATION

Master Data Science at Polytechnique 2025 - 2026

- Relevant coursework of Maths: High Dimensional Statistics, Hidden Markov Chain and Sequential Monte Carlo Methods, Convex Analysis, Optimization for ML, Stochastic Approximation
- Relevant coursework of CS: Deep Learning, Reinforcement Learning, Data Stream, Online Learning

Master of Engineering in Computer Science - Télécom SudParis 2022 - 2026

- Engineering curriculum focused on Statistics, Machine Learning, and Data Engineering.
- Relevant coursework: **Stochastic Processes**, **Extreme Value Theory**, **Neural Networks and Machine Learning**, **Reinforcement Learning** (GPA 4.0 / 4.0).

Auditor in the MVA Master's - ENS Paris-Saclay 2024 - 2025

- NPM3D: Point Cloud and Modeling (validated)

Preparatory Class (Maths & Physics, CS option) at Lycée Saint-Louis 2021 - 2022

- Equivalent to double license in Maths and Physics, with a specialization in Computer Science.

PROJECTS

- Swarm Rescue Challenge 2025

January - March 2025

 - Ranked **5th out of 40+ teams** in a coding challenge organized by **CIEDS** and **ENSTA Paris**.
 - Developed a **multi-agent system** in Python for drone coordination in a search-and-rescue scenario.
 - Focused on a simple and robust design using **A***, **Gaussian Filtering**, and **Kalman Filtering** for localization.
- CodinGame Bot Programming

2021 - 2024

 - Regularly participate in online programming contests on **CodinGame**, exploring algorithmic and AI-based problem solving.
 - Reached the **Top 1% globally** in the *Ultimate Tic-Tac-Toe* challenge using **Alpha-Beta pruning**.
- Autotech - Intech' Robotics Club (Télécom SudParis)

2022 - 2023

 - Served as **Project Lead** for the design of an autonomous vehicle within the school's **Intech' Robotics Club**.
 - Managed a small team and implemented the vehicle's control system using **ROS 1**, **C++**, and **Python**.

EXTRACURRICULAR ACTIVITIES

- Project Manager - Autotech, Intech' Robotics Club (Télécom SudParis)

2023 - 2024

 - Led the continuation of the autonomous vehicle project, coordinating a small technical team and managing project direction.
- Treasurer - Welcom' International Students Association

2023 - 2024

 - Managed the association's budget and organized intercultural events fostering student integration at Télécom SudParis.

SKILLS

Core	Python, Django, Odoo, ROS 1 & 2
Machine Learning & AI	PyTorch, TensorFlow, Machine Learning Engineering, Statistical Modeling, Optimization Algorithms
Data & Systems	Data Analysis & Visualization, Database Design (PostgreSQL), Data Pipelines, Linux Environment
Software Development	API Development (REST, GraphQL), Software Architecture, Version Control (Git, GitHub), Bash, C++
Web	Angular, HTML, CSS

LANGUAGES

French	Native
English	C1/C2 (TOEIC 920)