Augustin Bresset

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| Paris, France

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 in charge of modernizing the company's internal ERP used by about **40 employees**.
– Led the migration from a **legacy proprietary platform** to **Odoo 18 Community**, designing robust and scalable **database schemas** covering **hundreds of thousands of records** (stones, models, products, etc.).
– Developed and integrated **10+ custom Odoo modules** for **pricing computation**, **document generation**, and **production management**.
– Built automated **data import pipelines** to migrate large datasets from legacy systems.
– Improved overall **reliability**, **modularity**, and **maintainability** of the company's digital infrastructure.

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

– Conducted a literature review on **SLAM techniques using LiDAR and IMU sensors**.
– 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.
– Contributed to improving dataset accessibility and reproducibility for future SLAM experiments.

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.

PROJECTS

Swarm Rescue Challenge 2025   Janurary – March 2025

– Participated in a coding competition organized by **CIEDS** and **ENSTA Paris**.
– Developed a **multi-agent** system in Python to coordinate drones for search and rescue missions in a simulated environment.
– Algorithms used : **A***, **Gaussian Filtering**, **Kalman Filtering** for localization

CodinGame Bot Programming   2021 – 2024

– Competed in online programming contests on **CodinGame**.
– Top 1% globally in challenge named *Ultimate Tic-Tac-Toe* using **Alpha/Beta pruning**.

Autotech - ROS 2022 – 2023
– **Chief of Project** on the first year of project Autotech at Intech' (Télécom SudParis).
– Full coding of an autonomous vehicle in **C++** and **Python**, using **ROS 1**.

EDUCATION

Master Data Science at Polytechnique 2025 – 2026
– Focus on **Probability, Statistics, and Optimization**; aiming for a PhD in optimization for data science.
– Relevant coursework of Maths: High Dimensional Statistics, Hidden Markov Chain and Sequential Monte Carlo Methods, Convex Analysis, Optimization for ML, ...
– Relevant coursework of Computer Science: 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.

SKILLS

Core	Python, Django, Odoo, ROS1, ROS2
ML/AI	PyTorch, TensorFlow
Systems/Tools	C++, Bash, GitHub
Web	Angular, HTML, CSS

LANGUAGES

French	Native
English	C1/C2 (TOEIC 920)