Youssef Miled

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MEng Operations Research student with AI and software development experience. Seeking new grad roles in ML engineering or research, applied science, data science or software development.

Education

UC Berkeley, *MEng in IEOR*, California, USA — Aug 2025 – May 2026

- **Relevant Coursework:** ML and Data analytics, Mathematical Programming, Applied Stochastic Processes, Agentic AI.
- Teaching assistant for the course "Computer Simulations with Jupyter Notebooks" (Fall 2025).

Centrale Lyon, *Bsc/Msc in General Engineering*, Lyon, France — 2021 – 2025

- General Engineering, Applied Mathematics, Computer Science.
- Teaching assistant in Signal Processing for final-year undergraduate students (Fall 2024).

Skills

Programming	Python, C/C++, SQL, OCaml, Matlab, Java, JavaScript, HTML, CSS
ML	NumPy, Pandas, scikit-learn, PyTorch, OpenCV, OpenVINO
Tools / Platforms	Docker, Git, SLURM, LaTeX
Languages	English: *Fluent*, French: *Fluent*, Arabic: *Native*

Professional Experience

AI research intern, CISPA Helmholtz Center for Information Security, Germany — May 2025 – July 2025
Supervisors: Franziska Boenisch, Adam Dziedzic

- Researched parameter-efficient fine-tuning and smooth cascade unlearning through reversed self-distillation to make LLMs forget private data, showing that standard cascading between unlearning methods adds privacy risks.
- Implemented in-context unlearning and membership inference attacks on the smooth cascading method, achieving 1.2% TPR at 1% FPR. Used SLURM for parallel computing, and ensured reproducibility with Docker containers.
- Contributing to an ICLR 2026 submission in collaboration with Prof. Boenisch, Prof. Dziedzic; part of CISPA, ranked first globally in cybersecurity.

Projects

Small Language Models for Edge AI in Space, *Satlyt*, San Francisco, USA — Sep 2025 – May 2026
Capstone project. Supervisor: Rama Afullo

- Project with UC Berkeley and Satlyt, focusing on prototyping a ground-based system simulating Small Language Models deployment on satellites.
- Developing and deploying lightweight AI models for large-scale, real-time data processing in constrained satellite environments, leveraging AWS IoT Greengrass and Intel OpenVINO.
- Designing onboard inference pipelines to enable low-latency decision-making at the edge, reducing reliance on ground communications and ensuring robust performance.

Data analysis for table tennis matches, *LIRIS*, Lyon, France — Sep 2024 – April 2025
Research project. Supervisor: Romain Vuillemot

- Developed physics-based models and leveraged player performance data to pinpoint bounce uncertainty zones and strike timing patterns, enabling more accurate player classification and strategic insights.
- Engineered and enriched a dataset of 8,679 shots from professional matches with SQL; reconstructed 3D ball trajectories via physics simulations and validated it against ground truth using RMSE metrics.

Android app for classroom learning assistance, *Centrale Lyon*, France — Sep 2023 – June 2024
Capstone project

- Project leader of a team of 6 students developing a classroom learning assistance application using Android Studio. Utilized text processing algorithms to provide feedback on student note-taking.
- Developed two interfaces where the teacher gets insights into the students' mistakes or lack of focus, and the students receive evaluations of their own work.