

Adam Bekkar

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Research interests: machine learning, probabilistic models, optimization, and computer systems.

Education

2026 - Present **ETH Zurich** - Master of Science in Computer Science. Major in Machine Intelligence, minor in Theoretical Computer Science.

Currently taking Advanced Machine Learning, Optimization for Data Science, Probabilistic Artificial Intelligence.

2023 - 2026 **École Polytechnique Fédérale de Lausanne (EPFL)** - Bachelor of Science in Computer Science. Average: 5.1/6

2020 - 2023 **Lycée Lyautey, Casablanca, Morocco** - French Baccalaureate with Highest Honours in Mathematics and Physics

Research

Polaris: Interactive Consistency under a Dishonest Majority Sep 2026 - Present
Research intern, DCL Lab, EPFL, with Prof. Rachid Guerraoui, supervised by Grigorii Emdin. Rust implementation of a protocol in which an elected leader broadcasts one verifiable vector instead of running n parallel Byzantine broadcasts, measured against those baselines.

NUMAlloc Evaluation on CXL-Enabled Hardware Jun 2026 - Aug 2026
Research intern, RS3 Lab, EPFL, with Prof. Sanidhya Kashyap, supervised by Musa Ünal. Benchmarked NUMA allocators against jemalloc, tcmalloc, mimalloc, glibc, and others, and explored strategies to reduce latency across the CXL interconnect. Scripts and results on GitHub.

vNet: A Distributed Virtual Network for Informatics Contests Sep 2025 - Nov 2026
Head of IT, Polympiads. Designed and built a distributed virtual network for the informatics contests Polympiads runs at EPFL: each contestant machine reaches only what the rules allow, every packet is checked on organizer machines, and rules change live during the event. C++17, open source. Technical report; benchmarks on GitHub.

Teaching

Student Assistant, Practice of Object-Oriented Programming (CS-108), EPFL Feb 2025 - Jul 2025
Taught Java, object-oriented design, and core data structures in exercise sessions, and supported students on ReCHor, the semester-long project.

Projects

S4S-Connect - Students 4 Students
An app used by 1,000+ new students each year during EPFL's S4S integration week.

OnePass - Android Ticketing App
Team project for EPFL's Software Enterprise course (CS-311), built in Kotlin with a Firebase database. Placed 4th among 200+ students in the course's final contest, judged by a jury of CEOs.

Skills

Languages

French	Native
Arabic	Native
English	C1
German	Beginner

Skills

Languages	C, C++, Rust, Python, CUDA, SQL, Scala
Parallel and HPC	CUDA, MPI, OpenMP, Slurm
Systems	Docker, Kubernetes, gRPC, Linux, Grafana, CI, Git
Hardware	Verilog, RISC-V

Leadership

President, Students 4 Students Oct 2025 - Oct 2026
Led an organizing team of twenty and coordinated more than a hundred staff for the week that prepares new students for EPFL.

Head of IT, Students 4 Students Oct 2024 - Oct 2025
Developed S4S-Connect, the web app the participants use during the integration week.

Head of IT, Polympiads Sep 2025 - Aug 2026
Built and maintained the distributed virtual network used for HC2 and Prologin, each hosting 300+ participants at EPFL.

Class Representative, EPFL Sep 2025 - Jul 2026
Represented students in discussions with faculty, collected feedback, and proposed improvements.

IC Council Member, EPFL Sep 2025 - Jul 2026
Represented students on the IC Faculty Council.

IT Team Member, AGEPoly Sep 2025 - Jul 2026
Contributed to Trust, a rewrite of `truffe2.agepoly.ch`, the platform campus associations use to borrow equipment, book rooms, and manage accreditations.