

Aymen Kabil

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Seeking a 6-month end-of-studies internship from April 2027 – distributed systems, cloud & backend

EDUCATION

Institut Polytechnique de Paris – Télécom SudParis	2026 – 2027
M2 Parallel and Distributed Systems (PDS) – track FODQ	Palaiseau, France
• Courses: HPC (OpenMP, MPI, CUDA, Slurm), multicore programming (lock-free algorithms, NUMA), distributed algorithms	
Télécom Paris – Institut Polytechnique de Paris	2025 – 2027
Diplôme d'Ingénieur (MSc in Engineering), double-degree programme with INPT	Palaiseau, France
• Tracks: Distributed Software Systems (SLR); Maths, Theoretical CS & Operations Research (MITRO)	
Institut National des Postes et Télécommunications (INPT)	2023 – 2025
Engineering cycle, Software Engineering – algorithms, cloud computing, software architecture	Rabat, Morocco
Lycée Mohamed V – Classes Préparatoires (CPGE)	2021 – 2023
Physics & Engineering Sciences – ranked 20th / 912 at the national entrance exam (CNC)	Casablanca, Morocco

EXPERIENCE

CIEMS.ai	June 2025 – Sept. 2025
Software Engineering Intern – AI-assisted vehicle damage assessment	Rabat, Morocco
• Built the Flask REST backend of CIEMS-AutoVision for insurers: JWT auth, role-based access control, rate limiting	
• Integrated Gemini and GPT vision models to pre-fill damage reports from vehicle photos	
• Developed the Next.js/React frontend (claim-to-report workflow, PDF export); turned client interviews into specs	
INPT – SEEDS Research Team (CEDoc 2TI)	Feb. 2025 – May 2025
Research Intern – Software architecture optimisation	Rabat, Morocco
• Designed HARO , a multi-objective optimiser proposing microservice decompositions of Java monoliths, ranked by ROI	
• Modelled codebases as dependency graphs enriched with CodeBERT embeddings and Spring framework-level edge weights; implemented the full Python pipeline	
• Benchmarked 20+ methods (Louvain, Leiden, GA, simulated annealing, tabu search, NSGA-II) on 5 open-source Spring systems	
Ministry of Health	June 2024 – Sept. 2024
Software Engineering Intern – national youth health platform (ages 10–25)	Rabat, Morocco
• Developed the “Information & Education for Health” module (Spring Boot, PostgreSQL, Kafka, Docker); ran requirement meetings with stakeholders in Scrum sprints	

PROJECTS

Quorum – distributed database that survives failures – Go, Raft, Azure GitHub Live	2026
• Key-value store replicated on 3 machines with Raft, implemented from scratch (elections, PreVote, snapshots): a write is confirmed once a majority stores it	
• Tested against message loss, partitions and crashes: 3,000 random scenarios per CI run, linearizability checked	
• Deployed on Azure, leader killed every 10 min on a public dashboard; diagnosed and fixed an election storm there	
Vigil – real-time monitoring of a machine fleet – Go, Kafka, MQTT, TimescaleDB, Azure GitHub Live	2026
• Telemetry over MQTT into Kafka; flags in ~1 s a machine that died, or one stalled but still connected	
• Crash-safe 10-second history per machine in TimescaleDB; no message lost at 16,000 msg/s in load tests	
• Deployed on Azure with live Grafana dashboards; Docker images built and published by GitHub Actions	
Also: Fault-tolerant key-value store (Java/Akka, ABD quorums, linearizability checker, team of 4) · Distributed robotic factory (Spring Boot, Kafka, livelock-free concurrency)	

AWARDS, LEADERSHIP & ACTIVITIES

Highest Kaggle score (30 teams) – HAKS Hackathon (Airbus × IBM), corrosion-risk prediction	2026
2nd place , grand final – ASC Systems Engineering Challenge (IP Paris), system architecture design	2025 – 2026
Vice-President , INPT Chess Club – organised internal tournaments and weekly training sessions	2024 – 2025
Member , English Debating Club, Télécom Paris	2025 – present

SKILLS & LANGUAGES

Programming: Java, Python, Go, C, C++, TypeScript/JavaScript, SQL
Systems & Backend: Spring Boot, Akka, Flask, Node.js, REST, Apache Kafka, Redis, PostgreSQL, MySQL, OpenMP, MPI
DevOps & Cloud: Docker, Git, GitHub Actions, Prometheus, Grafana, Linux
AI & Research: LLM integration (Gemini, GPT), NLP, graph algorithms, multi-objective optimisation
Languages: English – full professional (TOEIC 955/990); French – C1 (DALF C1); Arabic – native
Interests: Chess (1900+ rapid on chess.com), competitive programming, mathematics