Mourtaza Akil

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I graduated from **Ensimag** with an **engineering degree** and an **MSc in AI**. I build software at every level, from compilers and GPU simulations to backend services and ML pipelines. At **Criteo**, my MCP servers and documentation agent reach 170+ engineers. At **ENGIE**, my web application let non-technical users train and run ML models; at **USP** São Paulo, I worked on AI-assisted chronic kidney disease detection from self-captured photos.

Professional Experience

CRITEO — **Paris, France**
Data & AI Engineer (Internship) — *Mar 2026 – Aug 2026*

- Built an MCP server giving AI agents access to Criteo's data catalog for schema discovery, lineage, and ownership lookup, reaching 170+ data engineers, ML engineers, and analysts; ~1,000 tool calls per week, ~20,000 total tool calls to date
- Built an MCP server for agentic data observability: root-cause analysis, incident triage/mitigation, blast-radius mapping
- Built an AI agent auto-generating dataset documentation from internal knowledge base, code search, and catalog metadata for up to 500 columns in under ~4 minutes; ~550 AI-generated documentations to date

ENGIE — **Paris, France**
Data Scientist (Internship) — *May 2025 – Sep 2025*

- Built dashboards ingesting ServiceNow data for IT asset lifecycle and compliance metrics tracking
- Developed a web application enabling non-technical users to train and run ML models with automated data processing
- Built MLP and SVM classifiers for automatic incident assignment, reaching ~85% accuracy on 20,000 held-out incidents across 10 categories

Laboratório de Técnicas Inteligentes - Escola Politécnica da USP — **São Paulo, Brazil**
Research Assistant (Internship) — *Feb 2025 – Apr 2025*

- Studied chronic kidney disease detection from non-clinical self-captured facial and hand photos for early-stage awareness
- Built and tested XGBoost and neural-network models for multi-stage classification, reaching ~77% accuracy on test data
- Applied image enhancement techniques (contrast, brightness, saturation) to improve data quality and model accuracy

Education

Grenoble INP — Ensimag — **Grenoble, France**
Engineering Degree in Computer Science & Applied Mathematics — *Aug 2023 – Aug 2026*

- OS, Hardware, Databases, Operational Research, Computer Networks, Information Theory, Systems Programming
- **Academic exchange** · Escola Politécnica da USP · São Paulo (Jan – Apr 2025)

Grenoble Alpes University — **Grenoble, France**
Master of Science in Artificial Intelligence — *Aug 2025 – Aug 2026*

- NLP, NoSQL, Data Processing, Machine Learning, Deep Learning, Computer Vision, GPU Computing, Multimodal GenAI

Projects

MCP Scala SDK · Model Context Protocol SDK for Scala with an effect-agnostic core — *Scala, Cats Effect, ZIO*

CrowdFlow · GPU-accelerated Reynolds Boids crowd simulation — *C, CUDA*

mlops-esg · Zero-shot ESG text classification pipeline — *Python, FastAPI, Redis, PyTorch*

DriftGuard · Persistent graph memory for coding agents — *TypeScript, React, MCP*

CPYRR Language · Compiler and VM for a procedural language — *C, Lex, Yacc*

Skills

Languages	Scala (Cats Effect, ZIO) · Python · C · Java · TypeScript · Rust
AI & Agents	MCP · LangChain · LangGraph · LangFuse
ML & GPU	PyTorch · Scikit-learn · CUDA
Data & Pipelines	SQL · Spark · Pandas · NumPy · PostgreSQL · Cypher
Platform	Docker · Kubernetes · Marathon (Mesos) · GitHub Actions · Prometheus · Grafana · Kibana
Web	Django · React · Streamlit · Tailwind · Tauri