Seif Boukerdenna

Summary

Software engineering student specializing in machine learning, computer vision, and scalable systems. Experienced in Python, C++, SQL, and modern frameworks. Delivered production-ready systems used by 10,000+ users and optimized ML pipelines to achieve +8% accuracy and ;200ms inference. Strong foundation in algorithms, cloud computing, and collaborative software development.

Experience

Incoming Full-Stack AI Intern - SecureRx

Montréal, QC

Sept. 2025 - Dec. 2025

- Will integrate **OCR** and detection models into Django backend to automate compliance checks.
- o Contribute to React dashboards and REST APIs improving data workflows.
- Optimize ML models in PyTorch/TensorFlow for accuracy and latency.

Mobile Developer Intern – Ora Medical

Montréal, QC

May 2024 - Aug. 2024

- Built a React Native + cloud app used by 40+ patients and 5 therapists, saving hours of manual work weekly.
- o Implemented secure data sync pipelines ensuring HIPAA/GDPR compliance.

${\bf Full\text{-}Stack\ Developer-UTXSOCCER}$

Montréal, QC

2022

- Developed scheduling platform (Node.js, React, Firebase) serving 1,000+ players.
- Automated logistics workflows, reducing administrative effort by 70%.
- Collaborated in a small team to deliver MVP to production in 3 months.

QA Analyst Intern - IBM

Montréal, QC

2021

- \circ Automated regression testing (2 days \rightarrow 6h), accelerating release cycles.
- Built regex-based log analyzers detecting 95%+ recurring errors.

Education

Polytechnique Montréal – B.Eng. in Software Engineering

2022-Present

Key coursework: Algorithms and Data Structures, Machine Learning, Computer Vision, Cloud Computing (Expected Graduation: 2026)

Projects

AI Chat Platform (2024–2025) — full-stack system with 10,000+ visitors in 72h and 2,500 concurrent users.

- Built distributed app with React, Node.js, WebSockets.
- o Deployed ML-driven conversational features with scalable backend.
- Designed infrastructure to support thousands of simultaneous sessions.

Real-Time Mobile Streaming & Event Detection (2024) — iOS screen mirroring + live inference.

- Developed iOS app (Swift) with React/Node.js backend.
- \circ Created custom YOLOv8 pipeline: 92%+ accuracy, ;200ms latency.
- Used in 100+ professional gaming sessions.

Computer Vision – Impact de Montréal (2023) — people counting with YOLO, PyTorch, achieving 90%+ accuracy, deployed in 200+ sessions.

Skills

Languages: Python, C++, SQL, TypeScript, Rust

Frameworks: React, React Native, Node.js, Django, FastAPI **ML/AI:** PyTorch, TensorFlow, YOLO, OpenCV, Scikit-Learn

Cloud/DevOps: Docker, Google Cloud, AWS, CI/CD (GitHub Actions)