

MOUHCINE AITOUNEJJAR

Ontario, Canada \diamond *Open to Relocation*

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SUMMARY

I'm a software engineer with 11 years of experience, specialized in the design, implementation, and testing of backend systems. I worked across domains including distributed and scalable systems, stream processing, and REST APIs. I seek to elevate my skills through formal education, research, reading, and learning from those with more experience, all while mentoring other aspiring and curious minds. I am in the final stretch of my master's degree in Computer Science with a Machine Learning specialization, at the Georgia Institute of Technology, where my coursework spanned advanced topics in the areas of deep learning, reinforcement learning, algorithms, robotics, security, and information retrieval.

EDUCATION

M. Sc. Computer Science - Machine Learning specialization	Exp. July 2025
Georgia Institute of Technology. Atlanta, GA.	
COMP5704 - Parallel Algorithms	2018
Carleton University. Ottawa, ON. (<i>Non-degree Student</i>)	
CS276 - Information Retrieval and Web Search	2017
Stanford University. Stanford, CA. (<i>Non-degree Student</i>)	
B. Sc. Computer Science	2013
Dalhousie University. Halifax, NS.	

SKILLS

Java. Go. Python. Unix. Unit/FVT Testing. Wiremock. APIs. Design Patterns. Docker. k8s/OpenShift. Go Operators. Grafana. Prometheus. Gitlab/CICD. PostgreSQL. Kafka. Kafka Streams. RocksDB. *Academic Setting* – L^AT_EX. PyTorch. scikit-learn. Pandas. Numpy.

WORK EXPERIENCE

Senior Software Engineer	2021 – 2025
IBM Security	
<i>Ottawa, ON</i>	
<ul style="list-style-type: none">• Implement real-time distributed data processing pipelines of next-gen security intelligence products.• Assess pipeline performance under heavy load, identify bottlenecks through performance testing and accurate measurement of relevant metrics (cpu/memory usage, consumer lags and processing latencies).• Improved explainability and processing power through introduction of targeted metrics along with removal of barriers to horizontal and vertical scalability. This led to more decision making transparency and faster throughput.• Completed and tested an extensive R&D project that led to 5x reduction in costly cloud storage requirements and 20x latency improvement, among other substantial gains.• Delivered a containerized JVM service that has been running bug-free since its initial deployment back in summer 2022.• Substantially improved developer efficiency by introducing a sophisticated namespaced OpenShift cluster setup, to streamline the execution of experiments with customizable parameters including partitions count, events rate, simulated API latencies, horizontal and vertical scaling.• Implemented a highly customizable event emitter used to exercise the event-driven pipeline by producing records to Kafka topics while ensuring full adherence to schemas.	

- Shown pragmatism, epistemic humility, and dedication to product quality, while collaborating with colleagues from all levels across the bigger threat management organization, in addition to the ability to articulate and accurately communicate esoteric technical concepts to wider audiences.

Software Engineer

2017 – 2021

IBM Security

Ottawa, ON

- Implement APIs and core functionality of QRadar; a leading cybersecurity and threat intelligence offering.
- Led successful technical projects that garnered praise for quality and delivery speed from stakeholders, including a critical API project that was implemented, tested and delivered in just under 4 weeks.
- Reduced a multi-year API development project to a multi-week timeframe, through deliberate use of design patterns and other principles, resulting in a record delivery and even more praise from stakeholders.
- Significant impact on developer productivity by maintaining various tools to streamline the development and debugging experience.
- Coached junior developers and interns from different backgrounds and skill sets.
- Participated in university recruitment events, formal mentorship initiatives, and casual career chats with interns from different backgrounds.

Software Engineer

2015 – 2017

Oracle

Quebec City, QC

- Develop Oracle Cloud applications that adhere to the company's standards in security, accessibility and internationalization.
- Disrupted old development and deployment techniques that took minutes, multiple times per day per developer, by investigating and adopting innovative bytecode redefinition technologies that took no more than a few seconds, resulting in substantial time savings and major boost to developer productivity across several teams.
- Drove technical discussions that led to long-lasting positive impacts on code quality and a quadrupled testing coverage, addressing topics from exception handling to logging and testing strategies.

Programmer-Analyst

2014 – 2015

Korem Inc.

Quebec City, QC

- Develop and maintain geospatial intelligence applications including user interfaces, server-side code and data models.
- Made extensive use of Java and JavaScript libraries in order to evaluate and visualize large data sets, and to create dynamic charts, PDF and CSV files, out of raw data.