Mohammed El Ouaabani

linkedin.com/in/mohammed-el-ouaabani | github.com/momoElbn

Experience

FinOps Intern Sept. 2026 – Dec. 2026

Intact Financial Corporation *Montreal, QC*

- Sped up a nightly cost-allocation pipeline **96%** (**6h→15min**) by replacing a sequential EC2 worker with Step Functions running one Lambda per day in parallel, with retries, failed-day-only redrive, and no partial publishes.
- Enabled the pipeline to scale automatically with data volume, cutting **7–9** sequential batches to **1**, by diagnosing a subnet IP limit when parallelizing on Fargate, then moving to Lambda functions sharing VPC network interfaces.
- Cut ETL cost **95%**, from **$440** to **$20/mo** (~**$5K/yr** saved), by merging **5** GitHub Actions workflows and **2** always-on Airflow DAGs into one serverless, event-driven data platform (EventBridge cron, dbt on ECS Fargate) that unifies **8** cloud, AI, and SaaS sources, serves **3** FinOps modules, and ends **3-month-stale** Entra ID data.
- Made releases safe and failures visible by gating PRs on **352+ unit/E2E tests** and **90% coverage**, shipping images to ECR with probe-verified rollbacks, Terraform deploys through CI, and CloudWatch/SNS alarms.
- Led knowledge-sharing sessions onboarding **14** FinOps teammates on the new pipeline architecture, and presented a FastAPI/React showback tool built on it to **VPs, SVPs, and Directors**.

Projects

Quorum [GitHub] | *Go, Raft, Kubernetes Operator, Helm, Argo CD* November 2026

- Built a Go Kubernetes operator (CRD, StatefulSet, PDB) that runs a Raft-replicated key-value store safely, adding and removing cluster members as pods start and stop so the database never loses quorum.
- Killed the leader **86** times during **517K+** writes and lost **zero** acknowledged writes, with a new leader in ~**2.2s** (median), checked by a fault-injection harness and linearizability checker I wrote.
- Scaled the cluster **3→5→3** nodes under live traffic with **0** lost writes, and cut failed writes after a node crash from ~**600** to at most **1**, by letting new nodes catch up before they vote and removing old nodes before shutdown.
- Cut repeat outages after a leader change from up to **6** per run to **1** (longest **9.0s→5.3s**) by marking pods ready only once they know the current leader.

PayloadWatch [GitHub] | *Java 21, Spring Boot, PostgreSQL, JavaScript, AWS, Docker* April 2026

- Built a full-stack API monitoring app that catches silent failures uptime checks miss: a Spring Boot REST API and async polling engine validate live responses against JSON contracts, managed from a JavaScript dashboard.
- Designed and deployed an AWS stack with an HTTPS ALB (Route 53, ACM) over ECS Fargate Spot in 2 AZs, with RDS in isolated subnets reachable only through scoped security groups.

Certifications

AWS Certified Solutions Architect – Associate (SAA-C03) October 2026

AWS Certified Cloud Practitioner (CLF-C02) March 2026

Technical Skills

Languages: Python, Java (Maven, Gradle, JUnit), Go, JavaScript/TypeScript, SQL
Architecture: AWS Well-Architected Framework, Distributed Systems (Raft), High Availability, Serverless
Cloud (AWS): Lambda, Step Functions, SQS, ECS Fargate, EventBridge, RDS, DynamoDB, ALB, VPC/Networking
DevOps & IaC: Terraform, Kubernetes, Helm, Argo CD, GitHub Actions, Docker, Prometheus/Grafana, Git, Linux
Frameworks & Databases: FastAPI, React, Polars/Pandas, Spring Boot, Express.js, Node.js, PostgreSQL, MySQL

Education

Concordia University Montreal, QC

Bachelor of Engineering – Software Engineering Co-op *Expected 2029*

- **Award** | @Hack CTF Hackathon – 1st Place, Interac Track (March 2026)
- **Relevant Coursework** | Object-Oriented Programming II (A-)