

Morteza Mogharrab

(780) 238-2524 | morteza.mgb@gmail.com | [linkedin.com/in/morteza-mogharrab](https://www.linkedin.com/in/morteza-mogharrab) | morteza-mogharrab.github.io

Summary

Full Stack Software Engineer & AI Integrator with a Master's in Computing Science (4.0 GPA). Specializing in production-grade enterprise platforms, industrial data systems, and agentic AI architectures (LangChain, RAG). Proven track record of scaling backend infrastructure for 1,000+ daily users and engineering autonomous systems that reduce compliance audit times by 240x.

Education

Master of Computing Science – University of Alberta (CGPA: 4.0/4.0) 2023 – 2025

- Award: Graduate Course-based Master's Community Engagement Award

Bachelor of Computer Engineering – Azad University (IAU) 2015 – 2019

Professional Experience

Independent Software Engineer & AI Integrator – *Independent Practice, Canada* Sept 2025 – Present

Core Focus: Applied R&D, Agentic Workflow Automation, Technical Contracting

- **Agentic AI Architecture:** Engineered an autonomous compliance agent orchestrating 7+ tools (ChromaDB RAG, telemetry DBs, APIs) to execute AER compliance workflows, reducing audit cycles from 2 hours to 30 seconds (240x faster).
- **Data Engineering Pipelines:** Architected a hybrid-inference LLM Document Intelligence Pipeline processing 1,000+ structured records concurrently with 99% reliability, optimizing schema extraction costs via Qwen 2.5 and GPT-4o.
- **Enterprise Automation:** Delivered an n8n automation pipeline integrating Google Gemini and Drive APIs to process 200+ marketing assets daily, achieving a 97.5% cost reduction (\$400 to \$10 per asset).
- **Technical Contracting:** Delivered rapid proof-of-concept architectures for corporate clients, focusing on predictive analytics and decision-support engines for environmental safety.

Full Stack Software Engineer (Core Platform) – *Piko Digital, Edmonton, Alberta* May 2024 – August 2025

Tech Stack: Java Spring Boot, PostgreSQL, React, TypeScript, AWS, Docker, JWT, Redis

- **Scaled Enterprise Platform:** Architected the core social platform serving 1,000+ daily active users, handling full-stack development from Spring Boot microservices to React frontend.
- **300% Analytics Improvement:** Engineered a custom data intelligence dashboard consolidating 15+ data sources, transforming raw logs into actionable business insights for leadership.
- **60% Admin Overhead Reduction:** Automated user governance workflows by implementing RBAC (Role-Based Access Control) and JWT authentication, eliminating manual provisioning tasks.
- **DevEx & Leadership:** Mentored 3+ interns and authored 20+ technical SOPs, reducing new developer onboarding time by 40% and standardizing code quality.
- **40% Faster Development:** Architected a reusable React Native/TypeScript component library (50+ components), accelerating cross-platform feature deployment for iOS and Android.

Independent Web Solutions Consultant – *Freelance / Self-Employed* May 2019 – June 2023

- **End-to-End Delivery:** Managed full SDLC for SMB clients, translating business requirements into production-ready web solutions while advising stakeholders on digital strategy and hosting infrastructure.
- **Project Management:** Controlled budgets, timelines, and scope for 10+ concurrent projects, acting as the primary technical point of contact to ensure 100% on-time delivery.

Data Engineering Intern – *National Iranian Oil Company - Tehran, Iran* June 2018 – Sept 2018

- **Industrial Data Systems:** Optimized high-concurrency T-SQL queries and designed relational schemas for safety-critical logistics, improving operational reporting speed by 20% and ensuring 100% data accuracy.

Technical Skills

- **Backend & Cloud:** Java Spring Boot, Python, PostgreSQL, AWS (EC2, S3, SES), Docker, Microservices
- **AI & Automation:** Autonomous Agents (LangChain), RAG Pipelines, n8n Workflows, Vector DBs (Chroma)
- **Frontend:** React.js, TypeScript, React Native, Material UI, Data Visualization (Chart.js, Plotly)
- **Engineering Practices:** CI/CD, System Design, REST/GraphQL APIs, Agile/Scrum, RBAC Security