

MOHAMMED OMER SHAIK

APPLIED AI ENGINEER

Toronto, Ontario, Canada • +1 647 982 9633 • mohammed@omershaik.com
omershaik.com • linkedin.com/in/omershaik • github.com/omershaik

PROFESSIONAL SUMMARY

AI application builder with experience in Python, TypeScript, backend services and business systems. Develops generative AI applications, custom agentic workflows and MCP tools using model APIs, structured outputs and external data. Work includes research automation, specification review, semantic query routing and generative image workflows. Brings product ownership and banking integration experience to implementation, testing and release decisions.

TECHNICAL AND DELIVERY SKILLS

AI engineering: Generative AI, LLM integration, OpenAI, Anthropic, prompt engineering, custom agentic workflows, semantic retrieval, source grounding, structured outputs, MCP

Backend and data: Python, TypeScript, JavaScript, Java, FastAPI, Node.js, REST APIs, SQL, PostgreSQL, Redis, Weaviate, Pydantic, SQLAlchemy

Application quality: Zod, schema validation, asynchronous processing, human review, error handling, pytest, Vitest, Playwright, Git, Docker

Product delivery: React, Next.js, requirements analysis, API contracts, acceptance criteria, workflow design, technical documentation, Agile, Scrum

PROFESSIONAL EXPERIENCE

CodeSpellStudio

Sep 2024 to Jul 2026

AI Product Lead and Solutions Architect

Canada and India (Remote)

- Implemented Lorenth in Python and FastAPI: research framing, query generation, external search, streamed report synthesis and citations. Added fallback query generation and checks for report structure and numeric source grounding.
- Developed Crucible with an Anthropic model adapter, Zod schema validation and bounded revision loops. Kept proposed edits separate from the source document and left judgment decisions for human review.
- Built Palate, an open source Model Context Protocol (MCP) server in TypeScript. Exposed five tools for design routing, validation and reference lookup, with structured inputs, error responses, resources and prompts for AI coding assistants.
- Built and operated LaserEyedBen, a partner backed intelligence agent. Implemented LLM query classification and data routing between PostgreSQL and Weaviate to support transactional records and semantic retrieval.
- Integrated generative image providers into the PlotLight prototype through intent based model routing. Recorded API cost and latency, applied request timeouts and returned explicit provider errors to the application.
- Built SANAD for a client preparing a commercial launch. Translated procurement workflows into a bilingual application covering contractor discovery, bids, messaging, approvals, purchase orders and invoices, supported by a live demo and English and Arabic browser cases.

Majorel Canada

Oct 2023 to Aug 2024

Product Owner, Content Moderation Tools

Canada

- Turned recurring content review and quality issues into requirements, acceptance criteria, defect reports and workflow improvement recommendations.
- Worked with operations, quality, engineering and linguistics teams to clarify policy interpretation, escalation rules and expected tool behavior.

PROFESSIONAL EXPERIENCE CONTINUED

Elite Mobility Mfg.

May 2023 to Aug 2023

Quality Assurance and Process Improvement Analyst, Co-op

Mississauga, Ontario

- Cleaned and analyzed manufacturing quality data to support statistical process control, model validation, root cause analysis and KPI reporting.
- Worked with production, engineering and design teams to improve inspection workflows and investigate recurring quality problems.

Bismi Services Pvt. Ltd.

May 2018 to Jun 2022

Software Architect and Technical Product Lead

Hyderabad, India

- Translated requirements for HSBC Bank and Saudi National Bank engagements into service boundaries, API contracts, relational schemas and reporting workflows.
- Designed Java and Python services and SQL workflows, documenting data mappings, integration dependencies, validation rules and failure handling.
- Worked with business, engineering and QA teams to refine backlogs, resolve delivery risks and guide changes from design through production support.
- Automated recurring reports, data movement and QA checks to reduce manual processing and surface discrepancies for investigation.

Yahoo

Sep 2017 to May 2018

Ad Operations Specialist, Campaign Delivery and Quality

India

- Supported campaign setup, delivery monitoring, data quality and reporting. Investigated discrepancies across targeting, creative assets and tracking inputs, coordinating corrections before delivery.

Instazop

Apr 2015 to Aug 2017

Founder, Product Manager and Operations Lead

Kalaburagi, India

- Built and operated an online grocery marketplace, covering the website, ordering flow, vendor coordination, delivery process and customer service.
- Used customer conversations and order patterns to refine product assortment, promotions and delivery communication while managing daily operations.

EDUCATION

Ontario Graduate Certificate, Artificial Intelligence and Machine Learning

Lambton College, Toronto, Ontario. Jan 2022 to Aug 2023

Bachelor of Engineering, Computer Science and Engineering

P.D.A. College of Engineering, Kalaburagi, India. Completed Jul 2017

CERTIFICATIONS

Professional Scrum Product Owner I (PSPO I). Scrum.org.

AI in Fintech Essential Training. LinkedIn Learning, 2023.

Excel Essential Training (Microsoft 365). National Association of State Boards of Accountancy (NASBA), Jul 2023.