

# MOHAMMAD NAVEED KHAN

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## SUMMARY

Full-stack developer with around 3 years of experience shipping production systems across the web stack, Django/FastAPI on the backend, React/Svelte on the frontend, and modern DevOps (Docker, K8s, AWS). Experienced in designing and maintaining scalable APIs, asynchronous pipelines, and cloud-native workloads using AWS services including Lambda, EC2, and CloudFormation. Owns features end-to-end, from API contracts and data modeling to real-time UIs and CI/CD.

Comfortable working cross-stack in mixed ecosystems. Primary production experience in Python (Django, Celery, Redis, WebSockets) with working knowledge of Node.js/Express and Java/Spring Boot for service integration, API parity, and event-driven patterns. Focused on clean interfaces, reliability, and pragmatic performance.

## EDUCATION

<b>Master of Engineering in Software Engineering</b> , Western University, ON, CA	2023–2024
<b>Bachelor of Engineering in Computer Science</b> , University of Kashmir, J&K, IN	2017–2021

## SKILLS

<b>Languages:</b>	Python, JavaScript/TypeScript, Java, SQL, Bash, C++
<b>Backend:</b>	Django, FastAPI, Celery, Redis, WebSockets, REST APIs, Node.js/Express, Spring Boot
<b>Frontend:</b>	React, Svelte, Next.js, Tailwind CSS, ShadCN UI, Vite, TanStack Table
<b>Data/EDA:</b>	Message queues and event-driven patterns, RabbitMQ/Kafka (PoC level), SSE/WebSocket streaming
<b>Cloud &amp; DevOps:</b>	Docker, Kubernetes (Helm), AWS (Lambda, EC2, S3, SES, CloudFormation), GitHub Actions, NGINX
<b>Testing &amp; Monitoring:</b>	Pytest, Vitest, Playwright, Sentry, Prometheus
<b>Workflows:</b>	Agile, JIRA, code reviews, documentation-first development, TDD

## EXPERIENCE

<b>Full Stack Developer (IC, Contract)</b> Cypienta (EzSec Inc.)   Kitchener, ON / Remote US	Jan 2025–Jun 2025
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- Served as the primary IC for two core production apps: a React-based SaaS demo platform and an on-prem Svelte + Django enterprise app.
- Refactored a large legacy monorepo into a modular setup using Vite and automation scripts for unified dev/prod workflows.
- Migrated Svelte 3.4 to 4 and Django 3 to 5, cutting HMR from minutes to near-instant.
- Implemented Playwright and Vitest for frontend testing and Ruff/Black/uv for backend linting and dependency management.
- Re-architected Docker Compose environments for improved HMR, local testing, and CI/CD reliability.
- Designed Celery-based async worker pipelines to handle high-volume ingestion efficiently.
- Built a modular LLM layer with LangChain (OpenAI, Anthropic, Google, Ollama) for chat, reports, and PII-filtered data enrichment.
- Created a reusable Svelte 4 data table library using TanStack Table API with pagination, filtering, sorting, and column toggles.
- Built a Node.js/Express proxy for WebSocket and SSE streams for QA testing.
- Collaborated on a Spring Boot service to align REST contracts and improve health checks using Actuator.
- Deployed the SaaS app via AWS CloudFormation (CDK) with SES email workflows and integrated GA4 analytics.
- Built an internal ticketing system and merged live demos from the core app to improve user engagement.
- Integrated AWS Lambda into the demo platform for event-driven execution of the core NLP service, reducing infrastructure overhead and improving deployment flexibility.
- Fixed legacy broken tests and enforced GitHub CI rules requiring successful builds before merging.

## Founding Engineer (Part-time, IC)

Apr 2024–Dec 2024

RiskTec Systems | Toronto, ON

- Designed and implemented backend architecture for a multi-tenant SaaS platform for asset managers covering portfolios, trading, and compliance.
- Built per-firm tenancy in Django with strict data isolation, RBAC, and per-seat licensing.
- Developed a dynamic compliance engine for pre-trade and end-of-day rules with automated remediation.
- Integrated Bloomberg data feeds for live pricing, analytics, and historical backtesting simulations.
- Implemented Celery + Redis pipelines for real-time data ingestion and background task management.
- Built REST APIs and optimized database schemas for order management and trade compliance.
- Created an internal Express/TypeScript microservice for webhook ingestion and callback validation.
- Worked with external teams on a Spring Boot adapter for REST contract alignment and authentication consistency.
- Generated automated EOD reports with breach summaries, position details, and audit-ready exports.
- Supported AWS deployments via Docker and GitHub Actions for staging and production environments.

## Quant Backend Engineer

Jun 2022–Mar 2023

GenioBITS Technologies | Pune, India

- Built backend systems for a derivatives trading platform supporting strategy execution and analytics in institutional setups.
- Developed Django and FastAPI services for order routing, execution, and analytics pipelines.
- Created a data ingestion layer using WebSocket and REST APIs to handle real-time market feeds.
- Implemented Celery background tasks for trade reconciliation, notifications, and async event processing.
- Designed execution stages for options and futures strategies to improve throughput and reduce latency.
- Optimized PostgreSQL schemas and added Redis caching for high-frequency data retrieval.
- Prototyped a Spring Boot microservice to stream trade events into Kafka for downstream analysis.
- Contributed to performance monitoring dashboards and analytics modules for quant research teams.

## PROJECTS

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### SpyInAI — AI Story Game (Django + Svelte) ([Live](#))

- Built an interactive narrative game with streaming chat, session snapshots, and LLM token budgeting for cost control.
- Developed a clean Svelte frontend with guarded prompts backed by Django APIs and PostgreSQL.

### Alpaca-Main — Real-Time Trading Boilerplate (Django + React) ([GitHub](#)) | ([Live](#))

- Designed real-time trading boilerplate with WebSocket ingestion, Celery workers, and multi-timeframe candle resampling.
- Integrated Redis, PostgreSQL, and Docker Compose for local development with Flower for monitoring.
- Added a Node.js/Express utility for SSE replay and backtest visualization.

### PulseChat — Real-Time Messaging (Python + TypeScript) ([Live](#)) | ([GitHub](#))

- Implemented rooms, typing indicators, and presence tracking via WebSockets with JWT-based sessions.
- Containerized deployment with NGINX and Docker, with structured logging and metrics for room activity.

### LeafShelf — Social Bookstore (React + Express + TypeScript) ([Live](#)) | ([GitHub](#))

- Built Google Books-powered search with user lists, carts, and a three-step checkout.
- Created an admin dashboard for catalog management using Express APIs.

### Gatekeeper — Auth & CRUD Starter (Django + React) ([Live](#)) | ([GitHub](#))

- Implemented JWT authentication with token rotation and role-based routes.
- Integrated RTK Query for efficient frontend data management.

## EXTRA-CURRICULAR & LEADERSHIP

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- Collaborated directly with C-suite to ship critical features at Cypienta.
- Actively contribute to open-source projects focused on trading automation and AI web tooling.