

ROHAIL KHAN

Software Engineer | Python & .NET | REST APIs | SQL

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PROFESSIONAL SUMMARY

Software Engineer with an M.S. in Information Studies and hands-on experience building and modernizing full-stack applications in Python, .NET, and Flask with RESTful APIs and SQL/MySQL/SQLite databases. Delivered systems spanning employee management, support-ticket workflows, and sales analytics — covering authentication, role-based access, data pipelines, and interactive dashboards. Strong in debugging, machine learning, NLP, and Generative AI.

EXPERIENCE

Freelance Software Developer

Jan 2024 – Present | Remote, New Jersey

Independent contract and product development across .NET and Python stacks

- Stabilized a client's production .NET web application and API by diagnosing and resolving dependency conflicts, framework compatibility issues, and build errors, restoring reliable builds and deployment readiness.
- Modernized legacy application components through targeted debugging, dependency upgrades, and code-level fixes, reducing recurring runtime errors and improving maintainability.
- Designed, built, and deployed three end-to-end business applications (detailed below) — all live — spanning REST API design, relational database modeling, role-based authentication, automated data pipelines, and interactive dashboards.
- Implemented secure Admin/User role separation and authentication workflows across applications, enforcing access control at both the API and database layers.
- Managed the full development lifecycle independently: requirements, schema design, API development, testing, debugging, and version control (Git/GitHub).

TECHNICAL PROJECTS

Employee Management System (Live)

.NET, REST API, SQL

employee-management-api-kfpo.onrender.com/scalar/v1

- Built and deployed a RESTful .NET API with 10+ endpoints implementing full CRUD, search, multi-filter, and pagination for employees and departments, using a clean Controller-Service architecture with DTOs, JWT authentication, and role-based Admin/User authorization enforced at the API layer.
- Enforced data integrity with unique email/department constraints, added centralized exception handling and interactive OpenAPI/Scalar documentation, and containerized the app with Docker for deployment on Render with a managed MySQL database (Aiven) over TLS.

Customer Support Ticket System (Live)

.NET, REST API, SQLite

support-ticket-system-api-glob.onrender.com

- Built and deployed a full-stack ASP.NET Core Web API managing ticket creation, assignment, 3-level priority (Low/Medium/High), and 4-state status tracking (Open/In Progress/Resolved/Closed), with an interactive admin dashboard.
- Implemented secure user registration with BCrypt password hashing, email normalization, and duplicate-account validation; used async EF Core operations and a multi-stage Docker build for optimized deployment on Render.

Retail Sales Analytics Dashboard (Live)

Python, Flask, Pandas, SQLite, Plotly

retail-sales-dashboard-wmti.onrender.com

- Built a Flask web dashboard that ingests CSV/Excel sales files of 10,000+ rows and runs an automated Pandas cleaning pipeline: column validation and mapping, duplicate removal, and invalid-row filtering.
- Generated sales KPIs and automated business insights with interactive Plotly visualizations, persisted full report history in SQLite, and enabled cleaned-CSV export and report management.
- Designed a responsive glassmorphism UI (HTML/CSS/JavaScript) with a custom dashboard theme across 12+ features including upload, history, insights, and report administration.

CERTIFICATIONS

- Large Language Models — Google (Sep 2024) | Software Engineering Virtual Job Simulation — J.P. Morgan / Forage (Sep 2024)
- Introduction to Generative AI — Google (May 2024) | Career Essentials in Generative AI — Microsoft & LinkedIn (May 2024)
- Microsoft Full-Stack Developer Professional Certificate — Coursera (In Progress) | Generative AI for Software Development — Coursera (In Progress)

EDUCATION

Trine University — M.S., Information Studies (GPA 3.6)

Aug 2023 – Dec 2024

Coursework: Software Engineering, Database Management, Cloud Application Development, System Design

Brilliant Grammar School Educational Society Group of Institutions Integrated Campus — B.S., Computer Science 2018 – 2022

Final Year Project: Securing Data with Blockchain and AI — immutable blockchain storage with AI-driven anomaly detection

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, HTML, CSS, SQL

Backend & Web: .NET Framework, RESTful APIs, Flask, JWT Authentication

Databases: MySQL, SQL Server, SQLite

Data & AI: Pandas, Plotly, Data Visualization, Machine Learning, NLP, Generative AI, Anomaly Detection, Blockchain

Cloud, Tools & Concepts: Cloud Deployment (Render, Docker), Git, GitHub, Data Structures, Algorithms, Debugging