

Hassan Haseen

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Profile

Computer Science graduate with experience in AI Engineering, Backend Development, and Full Stack Application Development. Skilled in Python, JavaScript, FastAPI, Flask, React, Next.js, PostgreSQL, Redis, Qdrant, Docker, REST APIs, LLM integration, RAG, semantic search, and AI automation. Proven ability to design and develop scalable AI-powered applications, backend services, and responsive web solutions with a focus on performance, reliability, and user experience.

Work Experience

AI Developer | @Analytiverse

Jan 2026 – May 2026

- Contributed to Large Language Model (LLM) evaluation by assessing AI-generated responses across reasoning tasks.
- Performed human-in-the-loop evaluation, reviewing outputs for accuracy, consistency, and quality.
- Supported AI model validation through structured feedback and annotations to improve performance and reliability.

Associate Software Engineer | @Hubble42 Inc.

Sep 2025 – Dec 2025

- Designed and optimized AI data preparation and model training pipelines for multimodal AI applications.
- Contributed to Vision-Language-Action (VLA) projects by developing data annotation and preprocessing workflows.
- Collaborated on AI-centric backend workflows supporting model development and evaluation.

Education

National University of Computer and Emerging Sciences (FAST-NUCES)

2021–2025

BSc Computer Science

Relevant Coursework: Generative AI, DevOps, Software Testing, Natural Language Processing (NLP), Digital Image Processing (DIP), Information Security, Web Programming, Database Systems

Selected Projects

HelperHive – Home Services Mobile Application (FYP) | React Native, Firebase, Supabase, ContextAPI

- Co-developed a React Native mobile application connecting households with verified home service providers for booking and managing services.
- Designed and implemented responsive mobile interfaces using React Native, React Navigation, and Context API for efficient state management and seamless user experience.
- Integrated Firebase Authentication, push notifications, and Supabase backend services to enable secure authentication, real-time updates, and scalable data management.

AI-Powered Government Incentive Search Platform | FastAPI, PostgreSQL, Qdrant, OpenAI, Docker

- Built an AI-powered semantic search platform that enables users to discover government and economic incentive programs using hybrid search (vector similarity + meta data) across PostgreSQL and Qdrant.
- Developed an end-to-end data pipeline that scraped web content, extracted structured information using OpenAI models, generated embeddings, and indexed data into PostgreSQL and Qdrant for efficient retrieval.
- Engineered a FastAPI backend with AI-driven query understanding, metadata filtering, and scalable REST APIs, while migrating vector storage from PGVector to Qdrant to improve search performance and scalability.

SellSync – Multi-Marketplace Automation Platform | Next.js, Flask, Supabase, Redis, RQ, OpenCV

- Developed a high-concurrency automation platform that synchronized inventory and listings across 4+ marketplaces, reducing API response times by 85% using Redis + RQ asynchronous background workers.
- Built a Flask backend with Supabase and Redis caching to maintain real-time inventory consistency, prevent over-selling, and support scalable marketplace integrations.
- Designed an automated image generation pipeline using OpenCV, Pillow, and multi-threaded processing to generate marketplace-ready product assets at scale.

CI/CD Pipeline Development | Java, Maven, SonarQube, ArgoCD, Helm, Kubernetes

- Engineered a robust CI/CD pipeline for a Java-based application, streamlining the build, test, and deployment process to ensure rapid and reliable software delivery.
- Utilized Maven for efficient build management, integrated SonarQube for static code analysis and code quality assurance, and implemented ArgoCD for automated deployment to Kubernetes clusters using Helm charts.

Skills

Languages: Python, JavaScript, C++, SQL

Databases: PostgreSQL, Supabase, Qdrant, Redis, Firebase

DevOps & Cloud: Docker, Kubernetes, Jenkins, ArgoCD, Helm, Maven

Developer Tools: Git, GitHub, VS Code, Visual Studio, Eclipse, Bash, Claude Code

Web Development: FastAPI, Flask, REST APIs, Redis, RQ, Next.js, React, React Native

AI & Machine Learning: LLM, Retrieval-Augmented Generation (RAG), LangChain, Semantic Search

Professional Skills: Communication, Adaptability, Conflict Resolution, Project Management, Time Management