

FAZAL HASSAN

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Education

University of Toronto

Honours Bachelor of Science in Computer Science & Mathematics + PEY Co-op

September 2022 – April 2026

- **Relevant Coursework:** Software Engineering, Software tools & Systems Programming, Data Structures, Algorithms, Linear Algebra 1 & 2, Statistics, Software Design, Network Programming, Web Development

National University of Singapore

January 2025 – May 2025

Exchange Student - Quantitative Finance & Statistics

Singapore

- **Relevant Coursework:** Regression Analysis, Statistical Computing & Modeling, Advanced Mathematics in Quantitative Finance

Experience

Wolf Advanced Technology

May 2025 – Present

Jr. Software Developer

Aurora, ON

- Built and maintained .NET REST APIs and Blazor-based interfaces supporting internal operational tooling
- Designed SQL-based warehouse data models enabling analytics, reporting, and automated workflows
- Implemented a context-aware AI service using the OpenAI API to assist senior engineers in drafting and reviewing product requirements

Enactus UTM - Squirl ASL Translator

November 2023 – Present

Software Developer (AI & ML)

Toronto, ON

- Prototyped a real-time AI system to translate sign language into text, focusing on practical usability and iteration
- Experimented with Conv3D and RNN architectures, evaluating trade-offs between accuracy, latency, and deployment feasibility
- Built & trained models using PyTorch and TensorFlow, integrating them into Azure-based pipelines for scalable testing
- Documented design decisions and communicated model behavior and limitations to technical and non-technical teammates

Projects

Agentic Internal Docs Assistant | *Python, LangGraph, LangChain, OpenAI, Chroma, FastAPI*

Dec 2025

- Built an agentic RAG-based assistant using LangGraph to answer questions over internal documentation with stateful reasoning and conditional routing
- Implemented document ingestion, chunking, and embedding pipelines using LangChain with Chroma vector database for semantic retrieval
- Designed a routing agent to dynamically choose between retrieval, clarification, or direct LLM responses based on query intent
- Developed an answer synthesis module that grounds responses in retrieved context and supports source attribution
- Exposed the agent workflow via a FastAPI endpoint, enabling scalable, API-first deployment

Trip Split | *React, MongoDB, Express, Node, Google Cloud, OpenAI API*

Sept 2024

- Developed a MERN stack web app for collaborative expense tracking and trip management, deployed on Google Cloud
- Designed the system to automate expense reconciliation and reduce manual coordination between users
- Built a responsive UI using React (JSX), Vite, and Tailwind CSS for fast performance and usability
- Integrated Google Maps API for location-based expense tagging and map visualization
- Implemented Express.js and Node.js APIs to manage complex trip data with Firebase Authentication for user access control

Event Link | *Java, JavaFx, Eventbrite API*

April 2024

- Integrated Eventbrite API for seamless in-app event registration
- Applied clean architecture and SOLID principles for scalable codebase
- Used Strategy, Observer, and Builder patterns to enhance code structure
- Achieved 97% unit test coverage using JUnit for robust application quality

Technical Skills

Languages: Python, Java, C, C#, SQL, JavaScript, TypeScript

AI / Data: TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy, LangChain, LangGraph

Cloud & Automation: Azure, Google Cloud, Docker, Firebase, REST APIs

Frameworks: React, Node.js, Express.js, Blazor

Concepts: Software Engineering, Cloud, Scrum/Agile, Machine Learning, Web Development, Networks