# **ISHAN SETHI**

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#### TECHNICAL SKILLS

Languages Python, JavaScript, TypeScript, Java, C, C++, C#, Bash, Powershell, SQL

Frameworks/Libraries Flask, Node.js, .NET, Angular, React.js, Electron, OpenAI, LlamaIndex, TensorFlow,

Docker, Amazon Web Services, Azure, Google Cloud Platform

#### **EXPERIENCE**

### Fullstack AI Developer Intern AMD (Advanced Micro Devices)

January 2024 - April 2024

Toronto, ON

- Led the development of a generative AI-powered web application for analyzing engineering requirement descriptions stored in Jama at AMD, utilizing **Angular** for the frontend and **Flask** for the backend.
- Implemented generative AI algorithms, including **langchain** and **RAG**, to identify and highlight ambiguous terms within requirement descriptions, providing suggestions for improvement.
- Created a **SQL** table to store LLM responses, ensuring efficient retrieval and management of generated suggestions for future reference and analysis.

### Software Developer Intern

June 2023 - August 2023

Notified

Toronto, ON

- Orchestrated containerization of GlobeNewswire and supplementary applications (PNR, RSS, N3A, DCS)
- Optimized Solr Cloud installation through Docker, reducing setup time from 6 hours to 15 minutes
- Deployed **Docker Images** to **Amazon Elastic Container Registry**, and ran containers in AWS Elastic Container Service

Web Developer May 2020 - Present

Freelance Toronto, ON

- Designed dynamic mobile-first websites using **HTML**, **CSS**, **Javascript**, and **Bootstrap** for local businesses including a pediatrician's office, mobile store, and beauty salon
- Increased digital presence and foot traffic for those businesses
- Learned many entrepreneurial skills in networking, negotiation and customer satisfaction

#### PERSONAL PROJECTS

#### CustomGPT

- Developed a local version of ChatGPT enabling users to build and train custom conversational models
- Implemented RAG using LlamaIndex and a local LLM instance through Ollama
- Leveraged Express.js (backend), Next.js (frontend), and Electron.js for local deployment (Link)

## Auricular.ai

- Built the backend for a **Python** virtual assistant designed for students which analyzed the audio from online lessons and utilized **Natural Language Processing** AI to pick out key phrases such as test dates
- Employed Google Cloud Text to Speech, Facebook's Wit.ai APIs
- Won the 2nd place prize for the use of a Facebook API at Hack the North 2020++. (Link)

#### Hand Pong

- Recreated the game "Pong" in JavaScript for Hack the North 2021 using React.js
- The paddle is controlled by the user's hand with a **TensorFlow** AI hand tracking motion control from the user's webcam, and communicates via a **Node.js** backend server with **socket.io** websockets (Link)

#### Handwritten Numbers

- Developed and trained a machine learning model in Python
- Used **TensorFlow**, **Keras** and **TKinter** that would allow the user to draw any digit from 0-9. It converts the drawing into a **NumPy** arraywhich is fed into the model that predicts it with 98% accuracy. (Link)

#### **EDUCATION**

# University of Waterloo, Computer Science (BCS w/ Honours Co-op)

Expected 2027

**GPA**: 3.70

Relevant Coursework: Data Structures & Algorithms, Object-Oriented Software Development, Algorithm Design and Data Abstraction, Tools and Techniques for Software Development, Logic and Computation, Designing Functional Programs, Linear Algebra, Calculus  $1\ \&\ 2$ 

**Awards**: President's Scholarship of Distinction, Excellent Academic Standing, Hypatia Contest Honour Roll, Euclid Math Contest distinction