

ARYAN HUSSAIN

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EDUCATION

University of Toronto

Expected Graduation Date: June 2026

Bachelors of Applied Science in Computer Engineering + PEY, AI Minor

- **Relevant Courses:** Data Structures and Algorithms, Object-Oriented Programming, Operating Systems, Databases, Software Design, Engineering Mathematics, Machine Learning, and Artificial Intelligence

SKILLS

Programming Languages	C/C++, Python, Java, JavaScript, TypeScript, HTML/CSS, Matlab, Assembly
Frameworks & Libraries	React, Redux, Node, Flask, Django, PyTorch, Pandas, NumPy, Matplotlib
Databases & Storage	SQL, PostgreSQL, Firebase/Firestore, MongoDB(NoSQL)
Tools & Platforms	Kubernetes, Docker, AWS, Git, Linux/Unix, Sentry, Webpack, Figma, FPGA, Jira

EXPERIENCE

Nirmata

June 2024 - August 2024

Software Engineer Intern,

San Jose, California

- Spearheaded the implementation of permissions based security roles for the [Nirmata Policy Manager](#) SAAS tool using **JavaScript**, **TypeScript**, and **React**, enhancing product integrity for over **460** enterprise customers
- Integrated a dynamic monitoring system to track **Kubernetes** clusters' controls and policies for an internal version of Nirmata Policy Manager, reducing API calls and enhancing responsiveness by **200%**
- Resolved critical bugs causing failing API responses in collaboration with the QA team by implementing **Sentry** into the code base, leading to a more dependable API and **Node** infrastructure, ensuring reliable data retrieval

Your Next Career Network UofT

April 2024 - Present

Software Developer,

Toronto, On

- Engineered a registration platform for the UofT career fair, using **Firebase/Firestore** for authentication and tracking user data, and **JavaScript** along with **React** for UI, facilitating over **6000** event registrations
- Collaborated with a cross-functional developer team to design an interactive map of the career fair venue using **Figma**, and built it with a **Python/Flask** back-end, and a **React** front-end, ensuring seamless venue navigation

Institute of Electrical and Electronics Engineers UofT

May 2024 - Present

Web Developer,

Toronto, On

- Maintained and performed bug fixes for the IEEE team and hackathon websites, developed using a **Django** back-end, and a **TypeScript** and **React** front-end, allowing for over **1000** hackathon registrations
- Programmed a hardware sign-out site for IEEE's MakeUofT make-a-thon, using a **PostgreSQL** database to manage and track over **256** students borrowing hardware equipment, streamlining inventory management

PROJECTS

AudioCat Neural Network

[Github](#)

- Led a team of 4 to develop a convolutional recurrent neural network deep learning model that classifies WAV audio files into forms of media using the **Numpy** and **Pytorch** Libraries resulting in a test accuracy of **95.8%**
- Sampled and collected over **8000** different audio samples from various sources and built a **Python** script to sort, edit, and convert the files into normalized Mel-Spectrograms ensuring data integrity

Mapability

[Github](#)

- Developed a GIS mapping application in **C++** using the OpenStreetMaps API, allowing for fast navigation using an **A*** algorithm that is over **225%** faster than **Dijkstra's** algorithm and Implemented a **multidijkstra** and **greedy** algorithm to solve the Traveling Salesman Problem and optimize routes between multiple destinations

Not-Flix

[Github](#)

- Designed a high-end Netflix clone using **React** and **Node** for the user interface and back-end, leveraging **Firebase** for secure user authentication, alongside **MongoDB** to efficiently manage user account preferences, ensuring both privacy and personalized experiences within the application