ARYAN HUSSAIN

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EDUCATION

University of Toronto   Expected Graduation Date: April 2026 + PEY
Bachelors of Applied Science, Computer Engineering + PEY co-op

- **Relevant Courses**: Data Structures and Algorithms, Object-Oriented Programming, Operating Systems, Databases, Software Design and Communication, Deep 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	MongoDB, SQL, PostgreSQL, Firebase/Firestore
Tools & Platforms	Kubernetes, Docker, AWS, Git, Linux/Unix, Sentry, Webpack, Figma, FPGA

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, used by Visa, 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
- Optimized application usability by creating reusable hooks, components, and pages in **React** for customer requested features such as content filtering and page persistence, improving feature scalability and user experience

Your Next Career Network UofT   April 2024 - Present
Software Developer,   *Toronto, On*

- Engineered a registration platform for the YNCN UofT career fair, using a **Firebase/Firestore** back-end, along with a **JavaScript** and **React** front-end, facilitating over **6000** event registrations
- Designed a comprehensive and interactive map of the career fair venue using **Figma**, and developed it with a **Python** and **Flask** back-end, and a **React** front-end, ensuring seamless navigation throughout the venue

Institute of Electrical and Electronics Engineers UofT   May 2024 - Present
Web Developer,   *Toronto, On*

- Maintained and performed bug fixes for the IEEE team website, 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

Mapability   [Github](https://github.com)

- 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

AudioCat Neural Network   [Github](https://github.com)

- Led a team of 4 to develop an audio classification convolutional recurrent neural network, classifying WAV audio files into different forms of media using the **Numpy** and **Pytorch** Libraries with a testing accuracy of **95.8%**. Data was collected over 8000 audio samples and built a **Python** script to sort, edit, and normalize data

Not-Flix   [Github](https://github.com)

- Designed a Netflix clone using **React** and **Node**, and leveraged **Firebase** for secure user authentication, along with **MongoDB** to manage user preferences, integrated with the TMDB media API for a vast catalog,