Kelvin Yu

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EDUCATION

Bachelors of Software Engineering Honours *Expected April 2025*
McMaster University *Hamilton, Ontario*

- **Academics:** 3.7/4.0 GPA
- **Relevant Coursework:** Data Structures and Algorithms, Software Development, Computer Architecture, OOP

SKILLS

Languages Python, Java, HTML/CSS, JavaScript, C, C ++, PHP, MySQL, Verilog, Bash
Frameworks React.js, TailwindCSS, Flask, Tkinter, TensorFlow, Apache Maven, Rest APIs
Tools Git, Microsoft Azure DevOps, Jira, JUnit, Visual Studio Code, Docker, Figma, Matlab

EXPERIENCES

Software Engineer Intern *May 2024 - August 2024*
Toronto-Dominion Bank *Toronto, Ontario*

- Incoming Software Engineer Intern for TD Bank

Software Engineer Intern *May 2023 - August 2023*
Government of Ontario *Toronto, Ontario*

- Leveraged **JavaScript**, **HTML**/**CSS**, and **React** to develop dynamic and responsive websites, resulting in a **30%** increase in user engagement for Ontario's largest Cybersecurity Conference
- Implemented comprehensive **PHP** and **MySQL** based custom content management systems to dynamically create, manage, and update events for over **1,000** participants
- Utilized automation scripts through **REST APIs** to significantly cut down the manual effort required for susceptibility testing through agile methodologies

Software Developer *October 2022 - May 2023*
McMaster Formula Electric Hamilton, Ontario

- Converted Simulink control logic into usable **C** code, enabling control of driving functionality through vehicle dynamics and motor systems
- Prioritized use of testing/debugging tools in Simulink and C, achieving faster **root cause analysis** for competition

PROJECTS

RizzGPT *August 2023*

- Programmed a conversation starter bot using **OpenAI's API** to generate personalized conversation openers
- Developed Python code to extract **JSON** files generated to train the **AI** using custom data sets
- Created an interactive webpage with **HTML**/**CSS** for user inputs, real-time replies, and frontend-backend connectivity

Cognitive Sign Language Recognition *May 2023*

- Developed a custom-built **neural network** architecture for American Sign Language detection in Python
- Integrated the **OpenCV** and **TensorFlow** library for precise hand region segmentation in gesture recognition

Sorting Algorithm Visualizer *March 2023*

- Constructed a sorting visualization application in **Python** displaying sorting algorithms such as Merge Sort
- Integrated the **Tkinter** library to create a user interface and portray various animations and colours

2-D Mesh Generation *December 2022*

- Developed a versatile software solution in **Java** for creating and visualizing meshes, and polygons in a 2-D space
- Engineered comprehensive unit testing in **JUnit** to ensure the reliability and optimal performance of the codebase

AWARDS

Dean's Honours List *April 2023*
Engineering Award of Excellence *September 2022*