Jason Zhang

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Education

University of Toronto Sep 2020 — Apr 2024 + PEY
Bachelor of Applied Sciences in Computer Engineering – Dean's Honour List (**cGPA: 3.91**) *Toronto, ON*

Skills

Languages: C/C++, Python, JavaScript, HTML/CSS, ARM Assembly, Verilog
Technologies: PySpark, Seaborn, React, Tailwind, Node.js, Flask, Firebase, PostgreSQL, Git, VSCode

Experiences

Data Science and Engineering Intern May 2022 — Aug 2022
HSBC *Toronto, ON*

- Engineered a framework for HSBC to investigate controversy from a sustainability perspective and streamlines the identification of overlapping data points between ESG pillars and controversy
- Developed a scoring methodology that outlines the transformations of pre-processed vendor controversy data to a controversy score for every company within the coverage universe
- Created visualizations using Matplotlib and Seaborn for a white paper documenting research and analysis
- Debugged data pipeline and a proprietary entity-resolution engine hosted on the Hadoop cluster

Project Manager Jan 2021 — Apr 2021
UofT ESP II *Toronto, ON*

- Delivered a solution that improves communication between residential smart grid devices and the grid through optimizing the signal to noise ratio of the antenna component of e-Radio inc.'s P2D 2045™ Module
- Collaborated on professional engineering reports to liaise with client regarding the functionality of design
- Generated and maintained Gantt Charts to provide a timeline for deliverables throughout the design process resulting in improved work efficiency and team dynamics
- Engineered a solution analyzed to be less than **50%** of the original cost requirement in 4 months

Projects

Mappr | Course Project | *C++, OpenStreetMap API, GTK, Git*

- Developed a Geographic Information System using the **OpenStreetMap API** and **GTK** toolkit
- Implemented **Dijkstra's** and **A*** algorithms as well as multi-threading to optimize responsiveness of software when user queries for map directions using the GUI
- Ranked **above 50%** of other programs within the course in solving **TSP**

NFTracker | Demo | GitHub | *React, Node.js, JavaScript, Firebase*

- Integrated the **OpenSea API** in a web app that displays a gallery of NFTs and their prices added by the user for price tracking and bookkeeping purposes
- Implemented **Firestore Database** to store the NFTs added by the user and react concepts like custom hooks, reducers, and context to facilitate features like user authentication and requests to the database

Zenmo | Devpost | GitHub | *React, Node.js, JavaScript, Auth0, HTML/CSS, Bootstrap*

- Designed the frontend of a web app that allows users to set up "focus sessions" to promote productivity
- Implemented user authentication through **Auth0** to enable user-specific progress checking and secure routes within the app that required users to be logged in