Anne Sun

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Technical Skills

Languages: Python, Typescript, Javascript, HTML, CSS, SQL, Java, C++, Kotlin, C#, C, R
Frameworks and Libraries: React, Express.js, Node.js, Numpy, MongoDB, Next.js, Tensorflow, Bootstrap, TailwindCSS
Developer Tools: Docker, Git, Microsoft Azure, AWS ECS, MSSQL Server, Linux, Bash, Unity

Experience

Software Developer Intern Sep. 2024 – Dec. 2024
The University of Toronto *Typescript, Express.js, SQL, Node.js, Azure, MSSQL Server*

- Increased data retrieval performance by **10%** through moving intensive calculations from **Typescript** code into **SQL subqueries**
- Reduced codebase size by **45%** through simplifying logic and migrating from Express.js 4 to Express.js 5, enhancing maintainability and readability
- Enhanced scalability by migrating an **Express.js and Typescript** Student Record API monolith into **5+ microservices** used by **100+** university staff and applications
- Utilized **Swagger** to design **YAML files** to communicate business logic, allowing internal stakeholders to easily understand system functionailities

Projects

SqWiTs Game (3rd & Best use of Databricks @ SheHacks) | *React, TypeScript, Python, Flask, OpenCV, OpenAI*

- Developed a gamified study timer that uses **OpenCV** and **YOLOv5** to track for phone usage and delivers game punishments to discorage phone use
- Leveraged **Databricks**, **Scikit Learn** and **1100+ rows** of data to train a **Machine Learning Model** for a user's likelihood to study for 30 minutes and ultimately win the game
- Utilized **MinimaxAI** and **OpenAI** to parse user data, allowing for **immediate delivery** of generated emails to your mailbox through a **SMTP Server**

Wastely | *React, Express.js, JavaScript, Tensorflow, Python, Docker, CSS, GSAP*

- Built a full-stack application that classifies your waste and maps out optimal waste disposal locations
- Developed and trained a waste classification **Convolutional Neural Network (CNN)** on **22000+ images** with **89% accuracy** using the **Keras Sequential Model**
- Incorporated **Dropout** regularization technique to prevent overfitting and enhance generalization
- Containerized the image classification model using **Docker** for easy deployment and integration into **React** applications through **FastAPI**

YelpCamp | *MongoDB, Express.js, React, Node.js, JavaScript, Redux, Passport.js, Bootstrap*

- Developed a full-stack web application to search and add campground reviews
- Architectured a **MongoDB** database to efficiently store data for **50+ campsites** used in a **Campground API**
- Achieved data security through user **authentication and authorization** using **Passport.js**, **Redux** and **express-session** for global state management and session persistance

Estia | *React, Express.js, TypeScript. CSS, Supabase, Redux*

- Engineered a technical project curation application allowing **50+ users** to post, comment, save and like projects
- Constructed a comment voting system across **60+ projects**, utilizing **React life cycle methods** to handle real time interactions while ensuring data consistency

Education

University of Waterloo 2023 - Present
Candidate for Bachelors of Computer Science *3.93/4.0 Cumulative GPA*
Awards: Elizabeth Spracklin Entrance Scholarship, President's Scholarship of Distinction, G & F Financial Group Award
Leadership Roles: Women in Computer Science Publicity Director, SPARCs for Underrepresented Genders in Tech