Pravine Manivannan

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Education

McMaster University Hamilton, ON

Candidate for Bachelor of Computer Engineering and Management (Co-op) *September 2019 - Apr 2024*

- Currently maintaining a **cumulative GPA of 3.6/4.0** in level 4 of my program
- McMaster Dean's List: Year 1 to present

Projects

Threads Clone | Personal Project | *Next, TypeScript, Tailwind, MongoDB, Clerk* August 2023

- Created a web version of the text based social networking platform Threads.
- Utilized **NextJS** to take advantage of server-side rendering, **Typescript** to introduce robustness and enhance code quality, and **Clerk authentication** to provide a secure and user-friendly sign-on and login experience
- Built a **RESTful API** with NextJS to perform **CRUD** operations using Mongoose via data models created for a non-relational database hosted on **MongoDB**. This allowed for scalability and adaptation for evolving user needs
- Used media queries for effective understanding of basic design principles and **responsive design**

PriceScraper | Personal Project | *Next, Tailwind, MongoDB, Cheerio, Puppeteer* September 2023

- Developed a web-based tool to monitor and compare prices of products across Amazon
- Utilized **Puppeteer for web scraping** to fetch real-time pricing data, and implemented a user-friendly interface using Tailwind CSS for easy navigation and monitoring.
- Employed **Cheerio for parsing HTML**, making the extraction of product data efficient and straightforward.
- Built a **RESTful API** using **NextJS** to perform **CRUD operations on MongoDB**

Pacemaker DCM | University Project | *Python, PySerial, Tkinter, MATLAB/Simulink* December 2021

- Was Project lead for group of 6 students to design, develop, and integrate the **DCM** a graphical user interface programmed in **Python** using a toolkit named **Tkinter** for a pacemaker device.
- Programmed Pacemaker Device with **MATLAB/Simulink** to communicate with the User's PC via the DCM using **UART Communication protocols** to interact and display information
- Applied knowledge of **object oriented programming, low coupled/high cohesion design, SDLC, unit testing** and **information hiding** to build a robust software application
- Demonstrated strong written communication skills by documenting over **100+ pages** worth of information on requirements, module responsibilities, implementation, interface testing, and more

Experience

5G Software Developer Intern May 2022 - Dec 2022

Ericsson *Ottawa, ON*

- Utilized **GO** to implement various features in **DUCP-Carrier Aggregation** in conjunction with various **Cloud RAN Micro-services** to ensure signals were passed seamlessly; aided in **250 percent increase in mid-band coverage**
- Worked on features pertaining to **creating datatypes in GO**, building **prisma schemas** and using **gRPC API** calls to trade signal information between other Router nodes on the 5G network
- Performed synchronization of micro-services on production code updates; leveraged testing frameworks together with **Jenkins pipelines** all while ensuring greater than **90 percent code-coverage using Sonarqube**

Web Developer Intern Sept 2021 – Dec 2021

SnapSmile *Remote*

- Created compelling UI components based on Figma designs with the usage of **React and Tailwind**
- Along with design leads, I designed wireframes with compelling, responsive, interactive **UI/UX experiences** by utilizing tools such as **Figma** and **Sketch**

Technical Skills

Languages: Java, C/C++, Go, Python, HTML, CSS, TypeScript, Node, Assembly, MATLAB, Simulink
Technologies/Frameworks: Next.js, React, MongoDB, Mongoose, Express, Tailwind, Clerk, Docker, OAuth, Framer Motion, Tkinter, PySerial, Git, Github, AWS (S3, EC2, DynamoDB)
Other Technical Skills: Responsive Design, Data Structures and Algorithms. OOP, Functional Programming, Embedded Systems Programming, Quartus, ModelSim, Figma, Verilog, Adobe Suite