Zeerak Asim

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PROFESSIONAL EXPERIENCE

CONTROL SYSTEMS ENGINEER *Oct 2022 - May 2023*

Queen's Hyperloop Design Team

- Remodeled the legacy backend code from **Python** to **Node.js** for better performance; this reduced the data processing time by **45%**.
- Designed a communication link between the hyperpod and Arduino for faster transfer of sensor data through the network using **Express.js** and **JavaScript**. Allowing more reliable and faster connection between the data from the **Arduino** to the website's backend.
- Redesigned the preceding front-end code using **React** and **CSS**, which enhanced the **GUI** interface for faster loading time by **16%** and increased overall code efficiency.

SOFTWARE DEVELOPMENT INTERN *July 2022 - Sep 2022*

Gunkii

- Developed a responsive UI shopping cart and integrated **AfterPay**, utilizing **HTML**, **Liquid**, **CSS**, and **JavaScript**, which increased sales conversions by **8%** and successful checkouts by **5%**.
- Implemented website optimization through media compression and backend code refinement and resolved various UI bugs, resulting in a **15%** speed performance increase and a **10%** rise in user numbers.
- Provided peer guidance on **GitHub** issues and disseminated continuous website updates and optimization strategies through various platforms like **Google Docs** and **Slack** during weekly scrum meetings.

CO-TECHNICAL LEAD *Aug 2021 - Sep 2022*

Google Student Development Club

- Co-instructed seminars on a beginner's introduction to web development. Constructed a presentation and assisted the members by guiding them on constructing a basic webpage using **HTML** and **CSS**.
- Co-hosted a live demo on creating a simple custom personal portfolio using **HTML** and **CSS** to encourage the team to construct their portfolios. This resulted in a spark of interest in developing project ideas and increased the team's productivity.
- Led and invented preliminary **UI/UX** designs for a custom website for the Queen's GDSC team. The idea was presented to the core team and was liked. This idea was passed down to the successor core team.

PROJECTS

SIMPLE RISC PROCESSOR

- Programmed a Reduced Instruction Set Computing (RISC) style processor using **Verilog HDL**, **Quartus II**, and **ModelSim Altera**. Capable of performing simple operations and other computational instructions.
- Attained more knowledge to gain a greater understanding of computing processors.
- Made as a team project for the university course ELEC374.

WEATHER APP

- An app that allows one to search a country or city and display its temperature and weather conditions using **React.js**, **JavaScript**, **CSS**, and **OpenWeatherMap's Weather API**.
- Easy-to-use interface with quick, accessible, and reliable information for the user.

NEWEGG.CA PRODUCT SCRAPER

- An app that allows users to enter the name of a product or GPU. The results are requested from Newegg.ca and displayed to the user using **Python** and a web scraping library, **BeautifulSoup**.
- Decreases the time required to go through every page of Newegg for the specific product.

EDUCATION

QUEEN'S UNIVERSITY *Class of 2024*

Bachelor of Applied Science (B.ASc) in Computer Engineering

ADDITIONAL SKILLS & INTERESTS

Technical Skills: HTML/CSS, JavaScript, Linux, VHDL, Verilog, Knime, C++, C, Java, Python, EJS.js, React.js, Node.js, Express.js, BeautifulSoup, Bootstrap, SQL, Arduino, Heroku, PHP, Apache, MongoDB

Programs: Microsoft Office Suite, Figma, Google Analytics, Azure, AWS, Docker, JIRA (SDLC), Trello, Lucidchart

Interests: Basketball, Soccer, PC Gamer, Building PCs, Foodie, Reading Biographies