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
- Constructed a responsive UI shopping cart page using **HTML**, **Liquid**, and **CSS** to increase sales conversions and user flexibility when using the UI. This change increased the sales conversions by approximately **8%**.
- Conducted research and executed methods to optimize the website's speed by compressing images and videos and reducing/deleting obsolete backend code that had caused the website to slow down. This increased the website speed performance by **15%**.
- Solved bugs and maintained the website by resolving video issues, scrolling animation bugs, and other issues that caused UI bugs. These solutions increased the number of users by **10%**.
- Integrated **AfterPay** to enable the BNPL feature using **JavaScript**, **Shopify Themes**, and **ShopSheriff** for the products on the desktop and AMP sites. This feature increased more successful checkouts by **5%**.
- Contributed constructive ideas, helped and guided peers over merging issues on **GitHub**, website optimization articles, and constant updates/PowerPoints based on the changes done on the website during weekly sprints and meetings. Accomplished using **Google Docs**, **PowerPoint**, **Slack**, and **Trello**.

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 | ELEC 374 PROJECT
- 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 | PERSONAL PROJECT
- 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.
- Made as a personal project.

NEWEGG.CA PRODUCT SCRAPER | PERSONAL PROJECT
- 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.
- Made as a personal project.

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, PC Gamer, Building PCs, Foodie, Reading Biographies