Jonathan Bodner

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SKILLS

Languages: C, C++, Java, Python, SQL, HTML, CSS, JS, VHDL, Verilog, Processing, MATLAB, Assembly

Technologies: Git, React, Node.js, Bootstrap, Arduino, Quartus, LTSpice, Windchill, Docker, Creo, Auth0, Spring

WORK EXPERIENCE

PointClickCare | ***Software Developer*** *Jan - Apr 2023*

- ⇢ Lead a rewrite of an internal message simulation tool with React by adding support for dynamic dropdowns, auto-population, data validation, and an overall UI overhaul. Achieved time savings and improved clarity for users during simulation. Additionally, the tool's success led to its consideration for external customer usage.
- ⇢ Enhanced multiple Java backend services and objects to support additional data & improve request accuracy
- ⇢ Created and modified React components to meet business needs such as custom dynamic form features

Empire Life Insurance | ***Full Stack Developer*** *Jan - Apr 2022*

- ⇢ Upgraded a Dockerized management application in React, Redux & Django used by support groups for quick, secure, and organized access to user data. Greatly reduced time spent onboarding and approving advisors
- ⇢ Led the creation of a SPA login page hosted on GCP to facilitate testing and debugging for the IAM team
- ⇢ Implemented tenant-wide biometric & SMS based Multi-Factor Authentication. Modernized and future-proofed the company's authentication & post-login processes. Both tasks were achieved using Javascript and Auth0

ExtentCom | ***Software Developer*** *May - Aug 2021*

- ⇢ Designed a browser based Command Line Interface page using HTML, CSS & JS that uses AJAX to allow users to input commands & receive responses from a remote machine's CLI API in real time
- ⇢ Built a custom API that replicates CLI behavior with Node.js. Used to conduct tests on the above front-end
- ⇢ Researched and developed a gradient algorithm that will accurately determine location of nodes on a map based on limited node locations and interconnecting distances. Analyzed performance by conducting tests in MATLAB in order to optimize accuracy and runtime

Terrestrial Energy | ***Software Developer & IT Technician*** *Jan - Apr & Sep - Dec 2020*

- ⇢ Developed Windchill workflows using Java and the Windchill API in order to automate numerous product lifecycle management processes, improving data accuracy & security in SQL tables while also reducing the time spent by users on redundant tasks. Collaborated with the QA team to plan and design requirements

PROJECTS

Real-Time Operating System: C based operating system executing on a microcontroller with memory management, inter-task communication, console I/O and real-time scheduling capabilities

Matrix Multiplication Module: Verilog based systolic matrix multiplication program deployed on a FPGA board

Algorithm Visualizer: Java based Processing application to display sorting algorithms in real time

Rock Paper Scissors: Responsive browser based game using HTML, CSS, JS, Bootstrap & JQuery

Obstacle Avoidance: Used ultrasonic sensors and an arduino to safely navigate a robotic vehicle

Path Visualizer: Applied a modified greedy algorithm on input elevation data in Java to determine an optimal path

EDUCATION

University of Waterloo | ***BASc. in Computer Engineering*** *Sep 2019 - Apr 2024 (Expected)*