

Thushan Puvanasingam

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EDUCATION

University of Massachusetts Lowell, Lowell, MA

08/2023

Bachelor of Science in Electrical Engineering, GPA: 3.2

Relevant Coursework: Circuit Theory I & II, Electronics I & II, ECE Application Programming, Logic Design, Microprocessors I, Intro to Data Communications, Signals & Systems, Electromagnetism I & II, Electromechanics, PV Characterization Methods, Linear Feedback System, Alternate Energy Sources, Electric Vehicle Technology

Skills / Tools: C, C++, Python, PHP, JavaScript, CSS, HTML, Node.js, React, Bootstrap, Fuel CMS, SQL, JSON, Git, Waveforms, Multisim (Familiar): MATLAB, MPlab, Windows, Linux, macOS, Microsoft Office (Word, Excel, Outlook, and Access)

CAPSTONE PROJECT

Brooks Automation, Chelmsford, MA

Fall 2022- Spring 2023

Automatic Robot Teach Tool – Computer Engineer

- Worked in a 5-member multidisciplinary team to automate the current process of teaching a robot the locations of four different wafer load stations.
- Created a configuration file in xml that kept track of robot details and station locations.
- Created a Graphical User Interface (GUI) using Python which determines the teaching specifications.
- Used GUI to extract required data to move the robot and wafer safely to the correct location.
- Configured/Programmed Raspberry Pi to handle the outputs of the robot's location-sensor and used it to move the robot to the correct location.
- Improved the efficiency of the existing robot teach code by creating a function to export needed data from the configuration file (xml) to the robot teach code.
- Interfaced weekly with project managers and team members to discuss goals, obstacles, and progress.

EXPERIENCE

NeoTech Design, Taunton, MA

9/2019 – 1/2023

Full Stack Developer

- Built, modified, and optimized secure web pages using Fuel CMS and CodeIgniter.
- Produced, maintained, and modified frontend websites and user interfaces (UI) using JavaScript, HTML, and CSS.
- Created backend modules to extract pertinent data from internal databases and populate the web-forms with filtered information using languages such as SQL and PHP.
- Maintained ticketing system, responded to tickets within a timely manner, root-caused issues and implemented fixes.
- Attended weekly meetings with clients to discuss the status of ongoing projects, ask questions, and get a better understanding of new tasks.
- Performed manual tests on newly created/modified websites for bugs and implemented needed fixes.
- Ensured bugs aren't repeated by documenting the problems and resolutions.

Tokyo Electron, Billerica, MA

7/2018 - 8/2019

Materials Specialist (Co-op)

- Planned, scheduled, and monitored the movement of materials through production cycle for wafer holders using Excel and Item master.
- Inspected and recorded the quality of returned materials (CRS's) to determine if they could be refurbished.
- Assisted manufacturing engineers with building-parts for semiconductor tools.
- Transcribed and maintained step-by-step instructions/flowcharts on how to perform various tasks such as how to use the VLM, how to ship products and how to determine if a CRS could be refurbished.

Reference will be furnished upon request.