Joshua Allen

(519) 331-3385 | 19jwda@queensu.ca | joshallen-portfolio.netlify.app/ | linkedin.com/in/joshua-wendong-allen/

HIGHLIGHTS OF QUALIFICATIONS

- Seeking internships starting in May or September 2023.
- Excellent teamwork and documentation skills developed while working at a professional engineering firm.
- Outstanding practical accomplishments in work, extracurriculars, and personal projects.

EDUCATION

Queen's University   **Sept 2020 – Present**

Bachelor of Applied Sciences & Engineering – Computer Engineering 3rd Year

- Relevant Coursework: **Digital Logic, Microprocessor and Embedded Systems, Software Development (C++)**

EXPERIENCE

Langtree Controls | Controls System Intern   **May 2022 – Aug 2022**

- Migrated legacy control systems for an industrial power plant to a new SCADA software.
- Recreated **HMI graphics** using **AVEVA WonderWare** and configured proper event animations.
- Tested **ladder logic PLC programs** and HMI graphic responses using Emerson's PAC Machine suite.
- Streamlined instrumentation tag database records and created an updated database in **Excel**.
- Created electrical block diagrams using **Visio** & annotated AutoCAD wiring schematics to reflect design modifications.

FIRST Robotics Competition | Design Team Lead   **Sept 2016 – Mar 2020**

- Designed and fabricated prototypes of mechanical components using **SOLIDWORKS** for 3D printing.
- Conducted **CAD testing** of mechanical connections to optimize design and improve overall functionality.
- Collaborated with team members in the assembly of the robot, leveraging a diverse range of power and hand tools.
- Implemented **Raspberry Pi**-based control systems using **Python**, with a focus on color recognition capabilities.

Queen's Cerebral Language Innovation | Web Developer Lead   **Dec 2021 – Present**

- Deployed a full-stack Python and JavaScript web app to visualize complex EEG data collected for ML models with ongoing updates to fix bugs and add new features.
- Coordinating with sub-team leads to plan and execute project within two 12-week semesters.
- Leading a team of 4 to enhance web app with custom graphics using D3js and ThreeJS libraries.
- Showcased the web app at NeuGeneration, a neuroscience conference, and concisely pitched the value of the product.

PROJECTS

Sarnia Produce | Automated SMS system   **Mar 2021**

- Created and internally deployed a chrome extension to **automate customer SMS** notifications to handle the surge of online orders from the COVID-19 pandemic.
- Increased the rate of successful pickups by **20%** and reduced the costs of wasted food from abandoned orders by **75%**.
- Initiated a solution to a pressing issue by speaking with the owner of the store and discovering his pain-points.

Professional Engineers of Ontario Design Competition | Local Park Renovation   **Sept 2019 – May 2020**

- Collaborated with a team of 4 students and an engineering mentor to redesign a local park with increased accessibility for those with disabilities.
- Iterated the design continually after receiving feedback from professional engineering mentors.
- Created a complete cost estimation in **Excel** with calculated **bill of materials** and cost of labor.

SKILLS

- **Technologies:** WonderWare, Proficy iFIX, SolidWorks, Linux, Git, Arduino, Raspberry Pi, Microcontrollers
- **Programming Languages/Frameworks:** C, C++, Python, MySQL, RISC Assembly, Java, JavaScript, TypeScript, React, HTML, CSS, Node.js, Solidity (blockchain smart contracts)