

JERRY(JIALONG) WANG

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Education

University of Ottawa

Expected Dec 2024

B.A.Sc Honours Electrical and Electronic Engineering

Ottawa, Canada

Relevant Coursework: Computer Architecture, Signal and System Analysis, Electronics, Digital Signal Processing

Technical Skills

Languages: JavaScript, C/C++, Python, HTML/CSS, PHP/MySQL, MatLab, Keil

Technologies: AWS (Lambda, API, Step Fns), Azure, Git, React, Redux, Node.js, MongoDB, Docker

Hardware: Linux, RTOS, I2C, SPI, UART, CAN, Ethernet, Wi-Fi, BLE

Experience

EcoSafeSense

May 2023 - Present

Test Design Lead

Ottawa, Canada

- The **ARM Cortex-M microcontroller** is utilized in the design of an **IoT sensor** that integrates multiple sensor elements. By combining **BLE and Wi-Fi** technology for wireless data transmission. The underlying driver is developed using **C++ and RTOS**.
- Develop mobile applications using **Java (Android)** and **Swift (iOS)** and utilize **Python (Pandas)** for efficient processing and analysis of environmental data.
- An environmental data monitoring system was created using **HTML, JavaScript** and **CSS** to achieve real-time monitoring and data analysis.

University of Ottawa

Sept 2022 - Present

Engineering Program Manager

Ottawa, Canada

- **Design and Verification:** By using software (**Python, C++, Linux**) and hardware (**Multimeter, Oscilloscope**) for DOE. Ultimately improving the team's **23%** work efficiency and avoid **40%** fault tolerance rate.
- **Technical Support:** Embedded design of products by using **X86 platform**. Responsible for product circuit design from Prototype, EVT and PVT (**integration, layout, verification, failure analysis**)

Apple Inc.

Apr 2022 - Sept 2022

System Test Design Lead Intern

Shanghai, China

- **Mix Cell Tester:** Responsible for overseeing the **product function design** and **circuit design** process, from **prototype development** to **PVT**. The tester facilitates the compliance of **8 battery CMs** with ERS, ensures data protection and test coverage requirements while **saving a \$45 million budget** and improving test efficiency by **14%**
- **Data Automation:** Use **Python** and **Tableau** to **automate data uploads** for battery CMs across **8 Apple LoBs**, support factories and Apple reliability teams in **securing test data**, and enhance data processing efficiency by **13%**.

KPMG LLP

June 2021 - Aug 2021

Risk Consultant Intern - GRCS

Beijing, China

- Developed a compliance analysis tool using **Python, Pandas, and MySQL** for a German car brand, processing over 4 million data rows and identifying key compliance violations.
- Led the enhancement of a UK car brand's resource management system using **Python, Pandas, and NumPy**, improving system approval efficiency by **23%** and reducing financial errors by **16%**.

Projects

Computer-Based Programming Exam System | *HTML/CSS, JavaScript, Java, MySQL, RESTful*

April 2023

- The **Java Spring** is used to build the backend to achieve efficient data processing and interaction functions.
- Developed an intuitive and friendly user interface using **HTML, CSS** and **JavaScript**
- Integrated **MySQL** database to ensure reliable storage and efficient retrieval of data.
- The **RESTful API** is used to realize data transmission with the front-end, ensuring the smooth operation of the system.

Heart Rate Analysis App | *Python, HTML/CSS, C++, MySQL, Embedded Design*

April 2022

- Utilize **Python (Pandas)** and **MySQL** to analyze data and **HTML/CSS** for constructing a website dedicated to data analysis. **Python (seaborn, Pandas)** to generate automated news reports.
- Use **C++** to realize **photoelectric sensor** and **IoT** functions in Arduino.