JERRY JU

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TECHNICAL SKILLS

Languages: JavaScript/TypeScript, Python, C/C++, Java, Bash, HTML, CSS
Tools/Frameworks: Git, MySQL, MongoDB, Node.js, React, Spring, OpenCV, Docker, pandas, Linux, Jenkins, Jira, AWS

EXPERIENCE

Q4 Inc. May – Aug. 2022
Full-Stack Developer Intern *Toronto, ON*

- Designed REST APIs for event data management using Node.js and MongoDB, enabling scalable storage and real-time updates
- Developed tailored React components and hooks using TypeScript for a SaaS conference platform serving millions of users, with Jest for unit testing
- Integrated Twilio APIs to implement real-time chat functionality in platforms, allowing for increased user interaction and engagement
- Led the adoption of a test-focused strategy by implementing an automated Cypress testing reporting using TestRail and GitHub Actions, greatly reducing production bugs by $> 35\%$

University of Hawaii Jan. – Apr. 2022
Undergraduate Research Assistant/Software Developer *Honolulu, HI*

- Implemented features in C++ to analyze droplets, using OpenGL and computer vision techniques to interpret diverse characteristics
- Authored comprehensive scientific and software documentation designed for scientists, researchers and developers

Ford Motor Company May – Aug. 2021
Software Developer Intern *Ottawa, ON (remote)*

- Enhanced Ford's token manager system using C/C++in a Linux environment to ensure secure access for networked vehicles, improving token security logging and debugging
- Developed cloud-connected, in-vehicle modules for Ford, collaborating with the testing team to ensure reliability on CAN/Ethernet networks using Jenkins
- Wrote unit and integration tasks in GTest to ensure proper functioning of features

Borealis Wind Jan. - Apr. 2020
Electrical and Controls Engineering *Waterloo, ON*

- Maintained PLC control systems in 6 remote wind turbines using Structured Text & Python, helping to reduce downtime by $> 80\%$
- Performed data analysis and error tracking on the wind turbine anti-icing system with Excel, MatLAB, and Python using SCADA data and MySQL from 6 turbines over 12 months

PROJECTS

Gymstagram

- Collaboratively developed a social media style gym app in Java using Android Studio featuring user authentication, posts, interactions, images, and workout history
- Designed a Spring Boot layered architecture back-end, with a repository pattern and CRUD endpoints using a MongoDB NoSQL database for structured and efficient data flow and scalability
- Implemented RESTful APIs with CRUD operations with Retrofit for secure data transfer between the front and back-end

EDUCATION

University of Waterloo 2018 – 2023
BASc. in Honours Mechatronics Engineering *(with Computing Option)*
Graduated with Distinction.