Julien Phan

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Education

Concordia University   **Montreal, QC, CAN**
Bachelor of Software Engineering

- Member of the Institute for Co-Operative Education

Work Experience

ABB   **May 2022 – Sep 2022**
R&D Software Engineer Intern   *Montreal, QC, CAN*

- Maintained and debugged a gateway system in **NodeJS**, conducting deep log analysis and troubleshooting to enhance system stability by **12%**, reduce downtime by **25%**, improve request handling efficiency, and ensure reliable device communication
- Enhanced the team's iOS application by integrating device status and connectivity information for gateway-connected devices
- Executed and documented test cases using **Zephyr Squad in Jira**, identifying and resolving **50+ critical bugs**, leading to **26%** fewer post-release issues
- Created and tested firmware and product functionality, ensuring compliance with industry standards, preventing **40%** potential failures before deployment

Robco   **Aug 2020 – May 2021**
R&D Firmware and DevOps Engineer Intern   *Montreal, QC, CAN*

- Developed embedded software for **ESP32** microcontrollers, enabling real-time factory data collection for dashboards and ML models, improving predictive analytics by **75%**
- Designed and implemented sensor data acquisition code, ensuring accurate and efficient sampling for industrial monitoring
- Automated **OTA** update processes using **Bash** scripts, improving deployment efficiency by **60%** and reducing manual intervention by **90%**
- Monitored and optimized **IoT** infrastructure by **65%** using **AWS IoT Core**, **FreeRTOS API**, and **AWS S3**, ensuring seamless data flow and storage

Projects

Compass | *Website* | *Source Code*   **NextJS | ExpressJS | PostgreSQL**

- Developed full-stack applications using **NextJS**, **ExpressJS**, and **PostgreSQL**
- Designed and implemented responsive web pages, improving user experience by **27%** across devices
- Optimized performance by implementing **caching** and a **PWA** setup, reducing load times by **up to 70%** and enabling offline functionality for **500+ users**
- Implemented push notifications and configured backend periodic tasks, leading to a **36%** increase in user engagement and ensuring timely updates for users
- Engineered backend **data models** and **RESTful endpoints** for CRUD operations, ensuring scalable and maintainable data storage for the application
- Implemented automated **backend testing** (unit & integration), increasing system stability and minimizing post-release defects

Leadership & Awards

Fide et Labore Valebo | *Scholarship*   **June 2017**

- Recipient of scholarship for outstanding academic and athletic achievements

Technical Skills

Languages: Python, Java, SQL, HTML5, CSS, JavaScript, C++/C, TypeScript
Developer Tools: AWS, Postman, Git, Docker, Jira, GitLab, ESP, Docker, Firebase
Libraries/Frameworks: Spring Boot, ReactJS, PostgreSQL, NextJS, ExpressJS, NodeJS