ALDREN L. LETADA

Quiot, Cebu City, Philippines

Firmware Engineer | Software Engineer | Embedded Engineer

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I have 3 years of industry experience in C/C++ development, primarily focused on embedded systems. In addition, I have over 1.5 years of experience in front-end web development using React.js and Next.js, With mid-level experience in full-stack development using Node.js, Express.js, and the Django framework (Python), I have built RESTful API back ends. I also have hands-on experience with React Native (Expo) for cross-platform mobile app development, along with prior exposure to Delphi and C# for building desktop applications.

TECHNICAL SKILLS

• Programming Languages: C, C++, C#, Python, Delphi, Java, JavaScript and TypeScript

• Front-End Frameworks: React.js and Next.js

• Back-End Frameworks: Python, Django, NodeJs and RESTFul APIs

• Database: MySQL, SQLite and Firebase

• Mobile Technologies: React Native, Expo

• Web Technologies: HTML5, CSS3, Tailwind CSS, shadcnUI, daisyUI and Bootstrap

• Embedded Systems: Arduino, ESP32, Raspberry Pi, PCB Design and IoT

• Tools & Platforms: Git, Linux, Shell/Bash Scripting, Version Control, Figma, GitLab, Azure DevOps, Postman

• Framework and Tools: Yocto, Jenkins, Coverity, Valgrind and GDB

Professional Experience

Lexmark and Research and Development Corporation

Junior Firmware Engineer

August 2022 – Present | Full-time

Employment Technologies:

C/C++, Python, CMake, Git, Gitlab, Gerrit, Coverity, Valgrind, Jenkins, Bash/Shell Scripting

• Job Accounting Log Reports– Enhanced report notifications and added support for multiple email platforms to improve delivery and compatibility.

• Addressed Coverity Reports – Reduced reported issues by fixing code vulnerabilities, including code leaks and buffer overflows, to improve overall code quality and stability

• Security Vulnerability Mitigation – Designed and implemented a filter to prevent XSS attacks, improving product security

• SNMP Security Enhancement - Implemented enhanced SNMP security support for hardware-based security modules, including TPM and Viper chips, to ensure secure device communication and management.

Freelancer

Embedded Engineer

November 2021 – Present

• Designed and developed custom PCB boards for client projects, with a focus on Arduino-based systems, Raspberry Pi integrations, and IoT solutions.

• Provided end-to-end support from schematic design to firmware development and hardware testing.

• Designed embedded systems for early warning anti-theft solutions with integrated GPS tracking.

• Developed smart classroom management systems with web-based monitoring and control.

• Engineered AI-based anti-cheating detection systems for student examinations.

• Built centralized supply control and monitoring systems for Electrical Engineering laboratories.

• Created smart waste management systems with AI-based automation and control

. • Developed an IoT-based Reverse Vending Machine integrated with a custom e-wallet mobile app for real-time credit.

 • And many more projects.

Freelancer

Software Engineer

 November 2024 – Present

• Developed clients projects **tourism guide web applications** using **Next.js and Firebase** for real-time data and user interaction.

• Developed clients projects web applications **Music Player App** using **ReactJs**, **NodeJs** and **ExpressJs**

• Developed clients projects web applications **Admin Dashboard for Ferry Boat Booking System** using **NextJs, Python Django Rest Framework and SQLite database**

Mentorship Program November 2023 – Present

 • Mentored students on their final year projects, providing guidance in areas such as Arduino, Raspberry Pi, AI, IoT, and web and mobile application development.

 • Supported project planning, debugging, and deployment to help students successfully complete their academic goals.

Projects develop September 2024 – March 2025

• Develop startup projects using **React Native Expo and Firebase, bill-splitting mobile apps**.

Education Bachelor of Science in Computer Engineering | June 2022

University of Cebu – Main Campus

Certifications and Awards

• Best Thesis Award, Computer Engineering Department

Thesis: Entrance Gate System for Covid-19 Health Monitoring in University of Cebu – Main Campus

led a team to develop a full prototype, including both hardware and software components. Utilized C# for desktop application development and Arduino for embedded system integration. Also contributed to the front-end development of the accompanying website using React.js.

• 3rd Place, Engineering Research Summit

Recognized for outstanding project execution and innovation across the entire Engineering Department.

• Certificate of Appreciation for mentoring student clients in Davao City

References

Merco C'zar Salise Software Engineer Optum

 Kirvy G. Dianon Software Engineer Lexmark Cebu Philippines

Jules Darren Racuya Software Test Engineer AWS

Jeff Borangan Senior Engineer Game Dev

 Exodia Gerald Anthony Cabansag

University of Cebu - Faculty Instructor

 Note: Contact details provided upon request.