CLARENCE A. PORTUGAL
SOFTWARE DEVELOPER INTERN

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An aspiring IT professional with hands-on experience in web and mobile software development, software–hardware integration, and IoT systems. Proficient in modern development frameworks such as React, Next.js, Node.js, and Flutter, with strong foundations in databases, APIs, and microcontroller programming. Experienced in delivering end-to-end solutions through freelance and project-based work, including automation systems, responsive web applications, and mobile apps. Highly adaptable, fast learner, and eager to contribute technical, problem-solving, and support skills in an IT internship.

EDUCATIONAL BACKGROUND:

TERTIARY: Bachelor of Science in Information Technology
Camarines Norte State College
2021-present

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, Dart, Python, Java, C++
Web Development: React, Next.js, Node.js, Express.js, HTML, CSS, Sass
Mobile Development: Flutter, Android Studio (Java & XML)
Databases: MongoDB, MySQL, PostgreSQL, Firebase
IoT & Microcontrollers: Arduino, ESP32, Raspberry Pi

NOTABLE PROJECTS

PinyaCure

AI-powered Crop Disease Detection & Quality Analysis Mobile Application

- Developed a mobile application that uses machine learning and image processing, allowing automated detection of pineapple diseases.
- Implemented sweetness estimation, supporting quality evaluation and farming decisions
- Provided **data-driven insights** for preventive and corrective agricultural actions.

EDUVISION

AI-powered facial recognition attendance system

- Developed an automated, contactless faculty attendance system using AI-based facial recognition, securing an accurate record management
- Addressed issues including ghost attendance, manual errors, late arrivals, and unrecorded absences

E-MUKLAT

Cultural Storytelling & Community Engagement Mobile Application

- Developed a mobile application that preserves and promotes local culture by allowing users to upload and share videos and stories about places and community experiences.
- Implemented secure user authentication and content management to ensure safe and organized user-generated media.
- Provided a digital platform that encourages community participation and builds a growing repository of local heritage.

ARICE

AI-powered Smart Rice Dispensing & Inventory Management Mobile Application

- Developed an IoT-enabled mobile application that automates rice purchasing and dispensing through secure in-app payments and Arduino-controlled dispensers.
- Implemented AI-assisted inventory monitoring and smart storage notifications for efficient stock management and reduced waste.

- Provided a seamless, contactless system for accurate quantity dispensing and real-time transaction tracking.

CACI

Gamified Learning & Knowledge Assessment Mobile Application

- Developed a quiz-based mobile application for Grade 10 students featuring interactive gameplay to test knowledge across multiple subjects.
- Implemented progress tracking, daily goals, level progression, and achievement systems to encourage consistent learning and engagement.
- Provided a competitive and motivating environment through performance statistics and game-based learning mechanics.

GAMA

Gamified Mathematics Learning Mobile Application

- Developed an educational mobile application that transforms geometry and algebra learning into interactive gameplay and visual challenges.
- Implemented puzzles, exercises, and cloud-based progress tracking to support continuous learning and performance monitoring.
- Provided an engaging, game-driven environment that improves student motivation and concept retention.

QUIZME

Gamified Quiz & Competitive Learning Mobile Application

- Developed a cross-platform mobile quiz application that enables users to test knowledge across multiple topics and challenge friends in competitive sessions.
- Implemented gamified learning features and modern UI to enhance user engagement and retention.
- Provided performance tracking and interactive gameplay to support continuous learning and friendly competition.

MOTORWASH 360

IoT-Based Automated Motor Cleaning & Payment System

- Developed an IoT-enabled automated motor cleaning system using Arduino-based sensors and motors for vehicle detection and cleaning operations.
- Implemented coin-operated and mobile payment integration with a React Native mobile app for remote control and real-time system monitoring.
- Provided a connected hardware-software solution with cloud-based data management for usage tracking and system reliability.

CERTIFICATIONS:

- NCII in Computer System Servicing
  September 05, 2025 | St. Claire Institute of Arts and Technology Inc.
- TOPCIT Certificate
  June 02, 2025 | Camarines Norte State College