KIM MARWIN S. ROQUE

Computer Engineering Student | Internship Applicant

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FEU Tech Briefcase: paraverse.feutech.edu.ph/briefcase/profile/606113202T

EDUCATION

Bachelor of Science in Computer Engineering | FEU Institute of Technology
Manila City, Philippines | Expected graduation: 2027

TECHNICAL SKILLS

Programming: Java, Python, JavaScript, SQL, C++
Web and APIs: React, Flask, REST APIs
Databases and Deployment: PostgreSQL, Render
Embedded Systems: Arduino Uno, pH/TDS sensors, relays, pumps, LCD/I2C
AI and Security: AI applications, AI-assisted development, network security fundamentals
Engineering and Professional: AutoCAD, leadership, teamwork, stakeholder communication, adaptability

PROJECTS

Student Centered App Map | Full-Stack Developer | June 2026
Technologies: React, Vite, Leaflet, Flask, PostgreSQL, REST APIs
Repository: github.com/irakerz05-dotcom/index0_studentcenteredapp

- Built a student-services web application with searchable establishment data, map-based discovery, user submissions, reviews/reports, and role-based verification workflows.
- Connected a React/Vite frontend to a Flask API and PostgreSQL data layer, with deployment configuration for separate frontend and backend services.

VERDE: IoT-Based Hydroponics System with Sensor-Vision Fusion | Project Developer | August 2026 - Present
Focus: IoT sensing, computer vision, plant health monitoring, nutrient management
Repository: github.com/irakerz05-dotcom/VERDEapp

- Combined sensor data and computer vision to support plant-health monitoring and nutrient management in hydroponic systems.
- Focused the system around data-informed observation of plant conditions and nutrient needs for more consistent hydroponic management.

Closed-Loop Water Quality Control System for Domestic RO Units | Embedded Systems Project
Technologies: Arduino Uno, pH/TDS sensors, relays, pumps, LCD/I2C

- Designed a prototype that monitors pH/TDS levels, compares readings with safe thresholds, and controls RO/alkaline filtration pumps.
- Used sensor averaging and threshold-based control to determine when filtration or alkalization was needed and to repeat treatment through recirculation.
- Integrated sensor averaging, recirculation, relay control, and LCD/LED feedback for continuous water-quality evaluation.

CERTIFICATIONS AND TRAINING

- AWS/CCNA Badges — Cisco Networking Academy | September 2026
- Java — Certiport | July 2025; Python — Certiport | March 2025
- Autodesk Certified User: AutoCAD — Autodesk | November 2024
- Champion, Robotics Showcase and Best Performing Robot — CPYESTA 2025: Faces of Innovation, ICpEP.SE NCR General Assembly | November 13, 2025
- Participant — MRSP NCR Robotics
- Three-time Dean's Lister; Junior Officer, FEU Tech Computer Engineering Organization | 2025 - 2026
- AI in Network Security; Stakeholder Management and Business Communications; Essentials for Students, Researchers, and Innovators | May 2026