

JOHN RAFAEL L. MOLINA

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Portfolio: <https://molinajr-portfolio.vercel.app/>

PROJECTS

- **Web-Controlled E-Paper Signage for CCIS Faculty Office**
 - Developed a web-based control system for E-paper displays using ESP32 to show real-time faculty status (In, Out, Lunch) outside office doors, improving visibility and coordination.
- **Capstone Project – “Room Signage using E-paper Display”**
 - Designed an IoT-enabled room signage system that displays room schedules and room details using E-paper technology, managed through a scheduling system.
- **Product Arrival Report (Excel/VBA)**
 - Created an automated Excel-based tool using VBA to log and track inventory arrivals efficiently, minimizing manual data entry and improving accuracy.
- **Return Upon Delivery Form (Excel/VBA)**
 - Built a logistics return form in Excel with VBA automation to document returned items upon delivery, generating summarized reports for inventory control.
- **E-commerce System**
 - Developed a basic e-commerce web application with product catalog, shopping cart, user login, and checkout functionality using ASP. NET and MySQL.
- **Real-time Weather Monitoring with DHT11 and Rain Sensor**
 - Implemented a weather monitoring system using Arduino that displays real-time temperature, humidity, and rainfall data on an LCD, useful for environmental tracking.
- **IoT-Enabled Tire Pressure Simulation and Monitoring System with Mobile App**
 - Simulated tire pressure monitoring using Arduino and WeMos with mobile app integration. Features include pressure display, control buttons, and LED indicators for pressure status.

EDUCATION

Mapúa Malayan Colleges Laguna | 2020 – 2025

Bachelor of Science in Information Technology

- College Dean's Lister 3rd Term, 2020-2021
- Research Paper Proposal – “Development of a Multi-Channel Inventory Management System for Online Sellers”
- Certifications
 - CodeChum Python Course
 - NSE 1 Network Security Associate
 - NSE 2 Network Security Associate

Holy Rosary College | 2018 – 2020

Science, Technology, Engineering, and Mathematics

Colegio de Sta.Rosa de Lima Inc. | 2014 – 2018

Junior High School

SKILLS

- **Internet of Things**
 - Arduino, ESP32, ESP8266, NodeMCU
 - Embedded Systems Programming
- **Software Development**
 - C# / C++
 - ASP.NET
 - Visual Basic for Applications
 - PHP
 - HTML, CSS, JS
- **Database Management**
 - Microsoft SQL Server
 - MySQL
- **Tools and Platforms**
 - Figma
 - Github