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"
- Completed a 486-hour internship as an IT Intern under Supply Chain Management, focusing on Excel VBA automation and streamlining data processing tasks.
- Certifications
  - CodeChum Python Course
  - NSE 1 Network Security Associate
  - NSE 2 Network Security Associate

Holy Rosary College | 2018 – 2020

Senior High School - Science, Technology, Engineering, and Mathematics (STEM)

SKILLS

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