

# Wilfredo Catalan

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Mahayag, Zamboanga del Sur Philippines 7026



## Experience

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### Malindang Broadcasting Network | Purok Santan B, Araullo Street

Programmer/Web Developer | 05/2024 - 06/2024

- Developed and maintained an Insurance System that tracks insurance payment history, manages unpaid bills for all members, and generates reports for deceased members and transaction history.
- Developed a Product Management System that allows users to add and distribute products, as well as generate detailed reports on product inventory and sales.

### WMSU Pagadian (Thesis Project)

Lead Programmer

- Played a key role as the lead programmer in our thesis, responsible for system development, code optimization, hardware-software integration, and troubleshooting to ensure efficient performance.
- Implemented IoT solutions for real-time monitoring and automation.
- Developed a web-based interface for data visualization and remote system control.

### Freelance Developer | Zamboanga del Sur National High School

Commission-Based Projects

- Developed and implemented Arduino and IoT-based solutions for school robotics projects, focusing on automation and intelligent systems.
- Provided customized solutions for academic and research-based projects, integrating hardware and software for real-world applications.

### JH Cerilles State College Dumingag

IoT Mushroom Automation Developer

- Designed and implemented an IoT-based mushroom automation system that monitors temperature and humidity using the DHT11 sensor.
- Developed a custom API to forward sensor readings to an online database for real-time monitoring and data logging.

- Integrated three relay modules for remote control of environmental conditions, allowing both manual and automatic operation based on sensor readings.
- Enabled seamless monitoring and control via a web-based dashboard to optimize mushroom farming conditions.

## **Skills**

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### **Programming Languages:**

- Python (Console & GUI Applications)
- PHP
- JavaScript
- HTML5 & CSS

### **Web Development & Frameworks:**

- React
- Bootstrap
- MySQL
- WordPress (CMS)

### **IoT & Embedded Systems:**

- Arduino
- IoT (Internet of Things)
- Robot Programming

### **Software Development & Automation:**

- Backend Development
- API Development
- Automation Scripts
- Embedded Systems & Automation

## **Education**

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- Western Mindanao State University | Pagadian City, Philippines 7016  
Computer Science | 05/2025  
Currently pursuing a Bachelor of Science in Computer Science.