Carlos Dwain Sorallo

Binangonan, Rizal | 09762162130 | sorallo.carlos17@gmail.com | LinkedIn Link | My Website

PROFILE SUMMARY

A detail-oriented individual with a strong work ethic who wants to consistently deliver results. Eager to apply my skills and knowledge in data-related field, IT, AI, electronics and sciences in real-world applications.

EDUCATION

Mapúa University — **Intramuros, Manila**

Bachelor of Science in Physics — *Aug 2018 - April 2025*

Bachelor of Science in Electronics Engineering — *Aug 2018 - April 2025*

EXPERIENCE

Accenture — **Taguig, Metro Manila**

Backend Developer - Data Engineer Intern — *May 2024 - March 2025*

- Automated 95% of performance reporting processes by developing a Python-based data transformation tool, reducing manual workload and improving efficiency by 90%.
- Cleaned, manipulated, and validated raw Excel data using Jupyter Notebook.
- Worked closely with client's Points of Contact (POCs) to validate and refine transformation logic.
- Created comprehensive documentation for the tool.

Accenture — **WFH**

Japanese Campus Intern — *May 2023 - Jul 2023*

- Gained proficiency in Japanese writing systems (hiragana, katakana, kanji) and cultural understanding.
- Gained exposure to network configuration and server management using Azure through knowledge transfer sessions.
- Learned about troubleshooting router and server issues through demos on ticket handling systems.

PROJECTS & RESEARCH

Plant Health and Severity Recognition System for Pechay Using Convolutional Neural Network — 2024

Mapúa University

- Developed a multioutput CNN model for real-time disease and severity classification in hydroponic Pechay.
- Curated and labeled datasets capturing health conditions (healthy, chlorotic, necrotic) and severity levels.
- Designed a PyQt-based python application with local database for user interaction.
- Integrated Raspberry Pi for continuous monitoring and early disease detection, improving crop management.

Effects of Varying Channel Length and Applied Magnetic Field in the Circuit Simulation of an All-Spin Logic — 2025

Mapúa University

- Simulated an All-Spin Logic (ASL) circuit in MATLAB to analyze the impact of varying nonmagnetic (NM) channel lengths on spin signal behavior, determining a spin diffusion length of approximately 346 nm.
- Verified extracted spin transport parameters via Hanle effect simulations, estimating a spin relaxation time of ~8.13 picoseconds and confirming consistency with the observed spin diffusion length.
- Demonstrated that a time-dependent magnetic field synchronized with the voltage source can reduce spin switching delay by over 40%, identifying an optimal field strength of 163 mT through knee point analysis.

CERTIFICATIONS & ACCREDITATIONS

Huawei Certified ICT Associate - Artificial Intelligence (HCIA-AI)

SKILLS

Python	Apache Airflow	Documentation and Reporting
SQL	ML/DL Model Development	Process Automation
MATLAB	Data Transformation & Manipulation	Microsoft Office 365
c++	ETL processes	Microsoft and Linux OS
git	User Interface Development	Virtualization (VirtualBox)

AWARDS/AFFILIATIONS:

- Mapua University:
  - Rank 7 in ECE for Batch 2018 (2020)
  - Rank 8 in ECE for Batch 2018 (2019)
  - Member of Physics Society of Mapua
  - Member of Institute of Electronics Engineers of the Philippines
- Rizal National Science High School:
  - Exemplary Academic Performance
  - Mind Excellence Award in Mathematics
  - Excellence in Mathematics