

# Charles Adriel A. Del Rosario

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## EDUCATION

**Polytechnic University of the Philippines – Sto. Tomas Campus**

Bachelor of Science in Electronics Engineering

**Laguna College of Business and Arts**

Science, Technology and Engineering, and Mathematics

Sto. Tomas City, Batangas

September 2024

Calamba City, Laguna

August 2020

## EXPERIENCE

**Microchip Technology Inc. Advanced Test Development Corporation**

16-bit Microcontroller Software Test Engineer Intern

Alabang, Muntinlupa

August 2023

- Created, developed, and debugged zeros and randomized test scripts/sequence using Test modes 3, 5, and ICSP Boot Programming (Test mode 0)
- Performed microcontroller tests using the created program for data collection
- Analyzed and presented the data collected to the management

## PROJECTS AND SKILLS

- Projects:** **Sage: Portable Device for Optimal Catboost-Driven Fertilizer Source and Rate Recommendations using Crop and Soil Data** designed the first fertilizer source and rate recommendation device armed with Catboost Algorithm to assist farmers in choosing the most suitable type of fertilizer for their crops and soil conditions
- SASSy: Smart Audio Surveillance System with Message Alerts using Convolutional Neural Network** designed to mitigate security vulnerability associated with darkness with the help of acoustics and deep learning
- Temperature Sensing Fan with Motion Detector:** created a smart fan prototype that automatically enables upon detecting movement; implementing the concept of a closed-loop (feedback) system that maintains desired ambient temperature
- Local Area Network (LAN) Design:** devised a local network design for City Disaster Risk Reduction and Management Office (CDDRMO) in Calamba City, Laguna
- Laboratory:** Electronics and Circuits Experiments, Etching, Digital ICs Circuits, Robotics Experiment, CAD Design, 3D Printing, Machine Learning and Deep Learning with various algorithms
- Technical:**
- Knowledge of Operating Systems such as Windows, Linux, and Unix
  - Experienced in microprocessors, microcontrollers, and real-time operating systems
  - Proficient with Programming and development with Python, C++, HTML/CSS, and AWK
  - Familiar with SQL, Java, JavaScript, React
  - Expertise with Data Analysis including, Data cleaning, Data visualization, Machine learning, Deep learning, Big Data processing, and AI deployment using Numpy, SciPy, Pandas, and Scikit-learn libraries.
- Languages:** English (Proficient), Filipino (Native)

## SELECTED AWARDS AND HONORS

- Cum Laude**, Polytechnic University of the Philippines – Sto. Tomas Campus 2024
- Academic Achiever (Overall Rank 2 in BSECE Graduating Class)**, Polytechnic University of the Philippines – Sto. Tomas Campus A.Y. 2023-2024
- Overall Rank 2**, Fourth Year Level, Polytechnic University of the Philippines – Sto. Tomas Campus, GWA: 1.32 A.Y. 2023-2024
- Author**, International Conference on Informatics and Computational Sciences 2024, Semarang Indonesia 2024
- Accreditation Service Awardee**, Polytechnic University of the Philippines – Sto. Tomas Campus 2022
- Merit Scholar**, Department of Science and Technology – Science Education Institute 2020-2024
- Excellence in Science**, Laguna College of Business and Arts A.Y. 2019-2020
- With High Honors**, Laguna College of Business and Arts A.Y. 2019-2020

## LEADERSHIP AND AFFILIATIONS

- Quizzers' Chairman, **Organization of Electronics Engineering Students** 2023-2024
- Member, **Kapatiran ng Galing at Talino (KATAGA)** 2020-2024
- Member, **Institute of Electronics Engineers of the Philippines - Batangas Student Chapter** 2020-2024
- Member, **Society of DOST-SEI Scholars – PUPSTC** 2020-2024