

EDUCATION

CARNEGIE MELLON UNIVERSITY (CMU)

BS IN ELECTRICAL AND COMPUTER
ENGINEERING
MINOR IN SOFTWARE ENGINEERING
May 2023 | Pittsburgh, PA
GPA: 4.0 / 4.0

COURSEWORK

- 18-213: Computer Systems (C)
- 15-122: Imperative Computation (C)
- 15-112: Fundamentals of Computer Science (Python)
- 18-100: Introduction to Electrical and Computer Engineering

SKILLS

LANGUAGES

Java • Python • C • C++
Javascript • Typescript
PHP • SQL • Bash

FRAMEWORKS

Git • Linux • Nginx
Android SDK/NDK • Flutter
NodeJS • Express • ReactJS • Slim
MongoDB • MySQL • Firebase
TensorFlow • OpenCV • Node-Red

HARDWARE

Arduino • Raspberry PI • NodeMCU

PUBLICATIONS

Development of a Mobile Android
Application on Optical Character,
Speech, and Sign Language
Recognition

published in the proceedings of
the 2018 Physics Society of
Visayas and Mindanao National
Conference (Philippines)

HONORS

- 2019 CMU Dean's List (Fall 2019)
- 2019 8th place at National Olympiad
for Informatics (Philippines)
- 2018 5th place at National Olympiad
for Physics (Philippines)

WORK EXPERIENCE

CMU HUMAN COMPUTER INTERACTION INSTITUTE

COMPUTER HUMAN INTERACTION: MOBILITY PRIVACY SECURITY GROUP

Summer Undergraduate Research Assistant

May 2020 - Present | Pittsburgh, PA

<https://privacystreams.github.io/>

- Developed IoT network hub that filters extraneous outgoing sensor data using **Node-Red** and **Node.JS**

SELECTED PROJECTS

DASHBOARD PHILIPPINES

March 2020 - Present | Philippines

<https://dashboardphilippines.com/>

<https://donations.dashboardphilippines.com/>

- Partnered officially with the Philippine government to develop a national dashboard centralizing information and relief distribution in the Philippines during COVID-19 pandemic
- Created platform streamlining donation process to hospitals to address the deficiency of medical supplies using **MongoDB**, **Express**, **React**, and **Node.JS** (Typescript)

NATIONAL AIR QUALITY MONITORING SYSTEM

March 2019 - Present | Philippines

<https://github.com/ph-innovation-network/amihan>

- Designed and created modular air quality monitoring device using **Arduino** and **NodeMCU**
- Created backend for collecting this information using **PHP (slim)** and **MySQL**

PUBLIC TRANSPORT TRACKING APP

December 2018 | Philippines

<https://github.com/gramliu/Suroy>

- Developed **Android** app that shows locations of public transportation vehicles in the Philippines with **Firebase** and **Google Maps** integration
- Awarded 1st Place, Arduino Day (2019); 2nd Place, Hack4PH (2018)

ACTIVITIES AND LEADERSHIP

SCOTTYLABS | DIRECTOR OF TECHNOLOGY

August 2019 - Present | Pittsburgh, PA

- Led the Tech Committee with 25 members, working on various projects and APIs for use on CMU
- Developed Course API which gives access to course information using **MongoDB**, **Express**, **React**, and **Node.JS**
- Managed **Ubuntu Linux** server maintenance and API proxy forwarding between two servers using **Nginx**

SOCIETY OF ASIAN SCIENTISTS AND ENGINEERS

EVENTS COORDINATOR

August 2019 - Present | Pittsburgh, PA

- Organized professional and cultural events for club with 10-15 active members to enrich student experience and pride in Asian heritage