
 <https://linkedin.com/in/gramliu>

 <https://github.com/gramliu>

 <https://gramliu.com>

GRAM LIU

 (412) 551-6292  gramliu@cmu.edu

EDUCATION

Carnegie Mellon University

Bachelor of Science in Electrical and Computer Engineering, **GPA: 4.0 / 4.0**

Pittsburgh, PA

May 2023

Relevant Coursework: Computer Systems (Assembly/C), Data Structures and Algorithms (C), Fundamentals of Computer Science (Python), Introduction to Electrical and Computer Engineering

SKILLS & HONORS

Languages:

JavaScript, TypeScript, Java, Python, C, C++, PHP, SQL, Bash

Frameworks:

NodeJS, Express, ReactJS, Slim, MongoDB, MySQL, Firebase,
Android SDK/NDK, Git, Linux, Nginx, TensorFlow, OpenCV, Node-RED

Hardware:

Arduino, Raspberry Pi, NodeMCU

Honors:

CMU College of Engineering Dean's List	2019-2020
8 th Place, National Olympiad for Informatics, Philippines	2019
5 th Place, National Physics Olympiad, Philippines	2018

EXPERIENCE

Research Assistant, CMU Human Computer Interaction Institute

May 2020 - Present

Computer-Human Interaction: Mobility Privacy Security Group

- Developed an IoT network hub that transforms normal sensors across LAN into a smart home system with a focus on privacy using **Node-RED**, **Node.JS**, **OpenCV**, and **TensorFlow**

Fullstack Engineer, Dashboard Philippines

March 2020 - Present

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

- Developed a national dashboard to centralize information about transportation routes, food supply, and relief distribution in the Philippines amidst the COVID-19 pandemic
- Developed platform that streamlined process of donating medical supplies to hospitals using **MongoDB**, **Express**, **React**, and **Node.JS (TypeScript) (MERN Stack)**

SELECTED PROJECTS

Distributed Air Quality Monitoring System

March 2019

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

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

Sign Language, Speech Recognition, and OCR Android App

October 2018

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

- Developed **Android** app to perform sign language recognition with **TensorFlow Lite** and **OpenCV Mobile**, and OCR and Speech Recognition using **Google Cloud API**

ACTIVITIES AND LEADERSHIP

Director of Technology, ScottyLabs

2019-Present

- Led weekly meetings with a committee of 25 members, working on various software engineering projects and APIs for the CMU community
- Developed a **RESTful API** for course information and estimated workload per week for different courses using **MERN stack**
- Developing new registration system for TartanHacks, CMU's largest hackathon, using **MERN stack**

Events Coordinator, Society of Asian Scientists and Engineers

2019-Present

- Organized professional and cultural events for 15 active members
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