

Cheng-Yeh (Ken) Chung

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Education

National Taiwan University (NTU)

Taipei, Taiwan

B.S. in Electrical Engineering with a minor in Computer Science and Information Engineering

Sep 2020 – Aug 2024

- Dean's List Award (2021) | Recent year GPA: 3.97 / 4.3
- TA of Introduction to Generative AI 2024 Spring (EE5200)
- Relevant Courses: Computer Programming, Cornerstone EECS Design and Implementation, Web Programming, Data Structures and Algorithms, Systems Programming, Computer Architecture, Computer Networks, Operating System, Machine Learning

Skills

Programming Languages	Python, C/C++, C#, JavaScript, Solidity, Bash
Web & Data Management	HTML, React, Nodejs, Web3, GraphQL, Flask, MongoDB, MySQL, Vector Database
Development Tools & DevOps	Git, CI/CD Pipelines, Linux, Testing Flow, Pipeline Automation

Professional Experiences

TANGIO LTD

London, UK

Firmware Engineer Intern | C, Python, Arduino, STM32, ESP32

Jun 2024 – Sep 2024

- Developed firmware for ESP32 to map sensor signals to force values, enhancing system performance through real-time data analysis
- Built and integrated a company-wide library for a capacitive sensing chip, enabling system dynamic adjustment
- Worked on IQS chip firmware development, implementing I2C and real-time monitoring through UART to Signal Viewer

CMoney Financial Information Technology Co., Ltd

New Taipei, Taiwan

Backend (Database) Engineer Intern | C#, CI/CD, Unit Test, Asynchronous Programming, SQL, OOP

Jan 2023 – Jun 2023

- Developed backend APIs and implemented a CI/CD pipeline using GitLab CI and Docker for a recruitment platform, automating data collection, storage, email notifications, testing, and deployment
- Created automated test suites for an Android app, enabling faster debugging for the engineering team

Research Experiences

Delta Research and NTUEE Speech Processing and Machine Learning Lab

Taipei, Taiwan

Undergraduate Researcher | Generative AI, LoRA, LLaMA2, PyTorch, Python

Sep 2023 – Present

- Conducting research on GenAI as part of a collaboration between Delta Research and NTUEE, supervised by Prof. Hung-Yi Lee
- Developed and optimized a fine-tuning pipeline for LLaMA2 using LoRA, improving model performance in specific language tasks
- Built a comprehensive model merging pipeline, integrating multiple pre-trained models to enhance generative capabilities

Project Experiences

Heart-Rate and Blood Pressure Variability Analysis Software

Taipei, Taiwan

Python Developer | Python, Signal Processing, Data Analysis

Sep 2022 – Jan 2023

- Developed software as part of a cross-domain collaboration between NTUEE and NTU Hospital
- Implemented real-time signal processing algorithms on electrocardiographic and blood pressure data, enhancing the accuracy of patient monitoring during cryoablation therapy

Metaverse Real Estate Transaction System

Taipei, Taiwan

Backend Developer | JavaScript, Nodejs, Python, Flask, Git, Unit Test, Document, Solidity, Web3, Ganache

Dec 2023

- Designed and developed backend services, including APIs, database integration, and blockchain testing using Ganache.
- Enabled Solidity smart contract compilation, deployment, and interaction with JavaScript for decentralized real estate transactions

Extracurricular & Leadership

NTUEE Light Dance

Taipei, Taiwan

📺 NTUEE Light Dance GitHub | 📺 2022 NTUEE Light Dance | 📺 2023 NTUEE Light Dance

Dec 2021 – Mar 2023

Firmware Leader | Testing Flow, Pipeline Production, Communication Skills, Feasibility Assessment

- Led 10-member team responsible for developing the real-time firmware system, designing testing flow and pipeline production flow
- Built custom libraries for multi-channel LED drivers on Raspberry Pi, enabling I2C communication to control digital signals
- Developed a portable LED dimmer system using LED strips and Arduino, ensuring stable operation and real-time feedback

Teaching Group, Academic Department, NTUEE Student Association

Taipei, Taiwan

Raspberry Pi Course Instructor

May 2023

- Designed and delivered a comprehensive RPi course, teaching students to set up and program RPi from scratch
- Taught practical skills in Linux and C, enabling students to independently develop real-world projects using Raspberry Pi
- Led students in hands-on projects integrating external modules, applying concepts in embedded systems and IoT

Awards

2023	Second Prize & Global Nominee , NASA International Space Apps Challenge in Taiwan	📺 NASA	Taipei, Taiwan
2021	Grand Prize & PixArt Inc. Prize , Meichu Hackathon	📺 Meichu	Hsinchu, Taiwan
2021	Third Prize , NTUEE Undergraduate Innovation Award		Taipei, Taiwan
2021	EECS Second Prize , MakeNTU		Taipei, Taiwan
2021	Best Creative Award , Final Contests of Cornerstone EECS Design and Implementation		Taipei, Taiwan