Paul Peng

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Education

MS	**National Cheng Kung University**, Computer Science and Information Engineering	Sep. 2022 - Sep. 2024
BS	**National Sun Yat-sen University**, Computer Science and Engineering	Sep. 2018 - Jun. 2022

Publications and Preprints

[1] *Yu-Po Peng*, Chung-Ping Young, Wen-Hsiang Lu, "**Design and Implementation of a Reasoning Question Answering System for Automatically Generating Implicit Questions Based on News Topics**," *Master's Thesis, National Cheng Kung University*, 2024. 🖥📄

[2] *Yu-Po Peng*, Pin-Chung Chen, Kuan-Yu Ko, Jun-Huei Wang, Shin-Nan Guo, Chun-I Fan, "**Secure Extended Mail System Based on Attribute-Based Encryption**," *Cryptology and Information Security Conference*, 2022. 📄

Honors

2023	**Judges' Recognition Award**, AI Voice-Assisted Exhibition Experience for Visually Impaired, AIGOOD Talent Competition	🌐
2022	**Best Student Paper Award (Honorable Mention)**, 32nd Cryptology and Information Security Conference, Chinese Cryptology and Information Security Association	🌐

Projects

Medical QA Assistant ⌂ — Lead Developer — Aug. 2024 - Sep. 2024
- Implemented Retrieval-Augmented Generation (RAG) using Large Language Models (LLMs) to **enhance response accuracy and responsibility**, avoiding user misguidance.
- **Skills:** Ollama, Streamlit, LangChain, Chroma

QA System for Generating Implicit Questions — Lead Developer — Sep. 2023 - Jul. 2024
- Using knowledge graph and NLP techniques to **implement a reasoning question answering system** for generating implicit questions based on news topics.
- **Skills:** NLP, Knowledge Graph, Neo4j

J-kumo (TW) Support System for Japanese Learning 🖥 — Primary Maintainer — Feb. 2023 - Apr. 2024
- Integrated six services from legacy systems by using **Django** and **streamlined deployment with shell scripts and Docker Compose**.
- **Skills:** Django, SQL, Nginx, Docker

Nmail System ⌂ — Lead Developer — Sep. 2020 - Oct. 2021
- Design a system that allows users to encrypt their emails with **ABE** before sending them.
- **Skills:** Attribute-Based Encryption(ABE), Gmail API, Web Development

Course Projects

Linux Kernel Project - fibdrv 🌐⌂ — Spring, 2023
- Write a kernel module of Fibonacci sequence, then optimizing its performance.
- **Skills:** C/C++, Linux Kernel

Online Chat Service ⌂ — Spring, 2022
- Built a simple chatroom supporting multiple users simultaneously.
- **Skills:** C/C++, Socket Programming