Fucheng Hsieh

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EXPERIENCE

National Chiao Tung University Aug. 2020 – Aug. 2021
Research Assistant, NEMS Lab Hsinchu, Taiwan

- Refactored modules of MEC platform, **boosted execution time by 25x**
- Collaborated with SNMS Lab (Michigan State University) to conduct experiments in uncovering security vulnerabilities of cellular IoT devices; paper was accepted by **MobiCom'21 (acceptance rate 59/297 = 19.9%)**
- Organized and collected experiment results in Prioritized Traffic Shaping MEC; paper was accepted by **IEEE CCNC'22**
- Partnered with Lanner Inc. to design an All-in-One store opening solution including IP Camera, POS, and EasyMesh Wi-Fi; implemented entire system in OpenWRT routers and virtualized system controller in a centralized server

Trend Micro Inc. Summer 2017/2018
Software Engineering Intern Taipei, Taiwan

- Developed automated tool to ensure product installation procedure follows company's rules; discrepancies were found and presented in the group meeting
- Programmed automated tool to synchronize LDAP authentication settings from employee database whenever it detects an organizational change; program was deployed in the IT system
- Built a query script for developers to check operating procedures whenever a competitor's product has been installed

EDUCATION

University of California, Irvine Sept. 2021 – Present
M.S. in Computer Science Irvine, CA

National Chiao Tung University Sept. 2016 – June 2020
B.S. in Computer Science Hsinchu, Taiwan

- **CGPA:** 4.11/4.30, **Class Rank:** 2/58
- **Honors**: Academic Achievement Award, 4 Semesters
- **Teaching Assistant**: System Administration (graduate-level course)

PROJECTS

NFT Marketplace

- Utilized Ethereum protocols to implement smart contracts, allowing users to trade and manage NFT assets
- Designed a full-stack web application using React, Next, and Bootstrap. Built with responsive web design for different types of devices

Fabric Defect Detection Tool

- Developed Fabric Defect Detection Tool with DL models to help manufacturers increase the product yield
- Implemented a user-friendly interface for users to upload images and detect defects automatically

μC Compiler

- Utilized C, Yacc, and Lex to create a C-like compiler, supporting most of the C-language elements
- Designed a user-friendly interface to provide a seamless user experience to other widely used compilers

Node.js Bulletin-Board System

- Designed a BBS using Node.js; allowing users to login, create, delete, update, and respond to posts
- Built with AWS S3 to save user posts and Apache Kafka for subscription service

SKILLS

Languages : C/C++, Python, JavaScript (React, Express, Node), Bash, HTML/CSS, SQL
Tools : UNIX, Git, Docker, Wireshark, OpenWRT, mongoDB, AWS S3, Apache Kafka, LaTeX