Shao-Ching (Jason) Huang

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SENIOR UNDERGRADUATE, COMPUTER SCIENCE, NTU

EDUCATION

National Taiwan University(NTU), Taipei, Taiwan
Computer Science and Information Engineering *Sep' 19 - Jun' 23 (Expected)*

GPA: 4.13/4.3 (Overall)

Coursework: Data Structure and Algorithm(A$^+$), Algorithm Design and Analysis(A), System Programming(A$^+$), Operating System(A$^+$), Machine Learning(A$^+$), Web Programming(A$^+$)

INTERNSHIP EXPERIENCE

Eero, Amazon Taipei, Taiwan
Software Dev Engineer Intern *Sep '22 - Present*

- Develop and maintain internal automation framework and testing environment for eero products.
- Identify and fix issues in eeroOS firmware.

AICS, ASUS Taipei, Taiwan
Software Engineer Intern *Jun '22 - Aug '22*

- Developed internal Kubernetes deployment pipeline with Azure DevOps.
- Re-implement an existing open source tool, selenium-ide, for internal applications compatibility.

HTC Taipei, Taiwan
Software Engineer Intern *Jun '21 - Aug '21*

RESEARCH PROJECTS

Intersection Management with Reinforcement Learning
Supervisor : Prof. Chung-Wei Lin *Feb '22 - Present*

- Applied PPO learning framework on scheduling problems of intersection management to achieve deadlock-free scheduling policy with performance improvements
- Our paper "Reinforcement-Learning-Based Job-Shop Scheduling for Intelligent Intersection Management" is accepted by **Design, Automation and Test in Europe Conference (DATE) 2023**

Lightweight Privacy-Preserved Speaker Recognition with Federated Learning
Supervisor : Prof. Hung-Yi Lee *Jul '22 - Present*

- Aimed to propose a privacy preserving speaker recognition framework which can be deployed on real-world devices such as mobile phone.
- Used federated learning to prevent the necessity of central server to access privacy-sensitive data.
- Identified trade-offs between privacy protection and computation complexity, and proposed mitigation methods.

COURSE PROJECTS

Approaches and Analysis on Chinese Zhu-Yin Decoding
Course : Digital Signal Processing

- Implement and compare the performance of the traditional HMM model and the modern BERT model on the Chinese Zhu-Yin decoding task.
- Plan to deploy public Zhu-Yin-Wen(注音文) translation service in the future.

TECHNICAL SKILLS

Programming Languages: C/C++, Python, TypeScript/JavaScript, HTML/CSS

Web Development: NodeJS, ReactJS, Django, MongoDB, PostgreSQL

AI/ML: NLP, RL, Machine Learning Frameworks(PyTorch, Tensorflow)

DevOps: Azure, Docker, Kubernetes

Security: Cryptography, Network Security(SSL/TLS, IPSec)