Shao-Ching (Jason) Huang

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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 Python automation framework and testing environment for eero networking devices.

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*

- Developed helper tools to increase workflow efficiency with *Node.js* and *Python*.
- Developed and maintained front-end structure of multiple websites.

Research Projects

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.

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

- A graph-based model, Timing Conflict Graph, is used to simulate real-world intersections.
- Applied PPO learning framework on scheduling problems of intersection management to achieve deadlock-free scheduling policy with performance improvements.

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
AI/ML: PyTorch, Tensorflow
DevOps: Asure, Docker, Kubernetes
Others: Git, MongoDB, PostgreSQL