

Shih-Hung (Hank) Wei

(571) 263-0307 | hankwei02151@gmail.com | www.linkedin.com/in/shihhung-wei

Education

Virginia Polytechnic Institute and State University(Virginia Tech), Falls Church, VA 2023 – Dec.2024(Expect)

Master of Engineering - Computer Science

National Yang Ming Chiao Tung University (NYCU), Hsinchu, Taiwan

2018 – 2022

Bachelor of Science, Department of Computer Science

Bachelor of Science, Department of Biological Science and Technology

- Completed 178 credits / Double major in 4 years, overall GPA: 3.35

Skills

General Development C/C++, Python3, Git, Php, Bash, AWS

Web Development React, Next.js, Express, Django

Machine Learning PyTorch, Scikit-learn, TensorFlow

Work Experience

Software Developer Intern, Radical AI, United States

June.2024 – Aug.2024

- Contributed to ReX, an open-source AI Coach, by implementing enhancements and debugging using **Node.js** and **React.js**.

Research & Development Intern, SHOPLINE Technology Corp., Taipei, Taiwan

July.2022 – Feb.2023

- Implemented operations quality requirements on **AWS**, to ensure SHOPLINE's e-commerce platform integrity and compliance.
- Identified and logged 150+ software defects, which led to a 30% improvement in product quality.
- Developed **JavaScript** test automation scripts enhancing front-end product reliability and user experience.

Undergraduate Researcher, Drug Design and Systems Biology Laboratory(BioXGEM), NYCU

July.2020 – June.2022

- Developed a full-stack web tool leveraging **JavaScript/PHP** and **Python**, facilitating user-friendly interactions with lab server utilities for efficient moiety extractions. The tool garners over 30 daily uses in lab. | [link](#)
- Improved lab workflow by integrating multiple Python tools into the website via PHP, making advanced data analysis accessible to all lab members.

Project Experience

wei4r.type - Zhuyin Typing Game | type.wei4r.com

Mar.2023 – present

- Independently designed and deployed a Zhuyin typing game using **Next.js** and firebase, focusing on user engagement and real-time performance metrics, hosted efficiently on Vercel.
- Managed and maintained the project's domain, ensuring user experience and accessibility for an interactive typing platform.

BookShelf - Online Bookstore | [link](#)

Aug.2023 – Dec.2023

- Built online bookstore platform in a *Web Development Application* course, integrating **React** with **RESTful** API.
- Enhanced data handling with **MySQL** and **JDBC**, improving efficiency.

Kinase Inhibitor Prediction via Graph Neural Network, NYCU

Sept.2021 – June.2022

- Converted 3D compound structure information to graph format using RDkit package in **Python**.
- Proposed an end-to-end GNN model through **PyTorch** independently to predict compound-protein (kinase) inhibition(CPI).
- Achieved a 16% increase in ROC-AUC prediction score compared to feature-based models.

Applications of Machine Learning for Compound-Protein Interaction, NYCU

July.2020 – June.2022

- Redesigned compound functional group extraction tool using RDkit, enhancing lab analysis capabilities and efficiency.
- Built multiple AI models through Python Packages, to predict CPI and FDA approval, ACC achieved 75%.
- Awarded a Research Grant for University Students by the Ministry of Science and Technology (MOST).