

# Shu-Wei (Frank) Hsu

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## EDUCATION

### Cornell Tech (Cornell University)

M.S. in Information Systems with a concentration in Connective Media

Aug. 2023 – May. 2025

New York City, NY

### National Taiwan University

Bachelor of Science in Electrical Engineering | GPA: 3.73/4.3 (3.66/4.0)

Sept. 2018 – Dec. 2022

Taipei, Taiwan

**Course works:** Computer Programming, Machine Learning, Algorithm, Data Structures, Computer Networks, Computer Architecture, Web Programming, Operating System,

## SKILLS

**Programming Languages:** Python, Typescript, Javascript, HTML/CSS, C#, C++

**Web Development:** React, Nextjs, Node.js, Docker, GraphQL, TailwindCSS, Svelte, PostgreSQL, MongoDB

**Other tools:** React Native, AWS, Azure, Git, Auth0, Hasura, Docker, PayloadCMS, Figma, Storybook, SWR

## EXPERIENCE

### National Taiwan University, Office of Academic Affairs

Aug 2022 – Jan 2023

#### Frontend Engineer

Taipei, Taiwan

- Led a team of **9** in developing NTU's new course selection website, now used by **16,000+** students
- Increased data-fetching efficiency by over **50%** in the **Next.js** application by integrating the stale-while-revalidate strategy
- Enhanced efficiency by redesigning APIs, eliminating unused data fields, and optimizing resource usage
- Integrated NTU's **SAML** Single Sign-On (SSO) to enhance application security and align with institutional protocols

### WOD.co

Feb. 2022 – July 2022

#### Software Engineer Intern

Taipei, Taiwan

- Launched a cross-platform workout TV app using **React Native**, adopted by **2** CrossFit gyms
- Enhanced gym owner control by developing a remote-control feature for the TV app, allowing operation via mobile devices using **Hasura** and **GraphQL**
- Reduced **50%** user input time by implementing **React**-based intelligent form auto-completion
- Enhanced data visibility by creating an interactive workout history dashboard using the **React-chart** library, empowering users to analyze their fitness progress with ease

## PROJECTS

### NTUCourse Neo (React, Next.js, PostgreSQL, Express.js)

A redesigned course-planning web service for students at National Taiwan University

- Developed a course planning tool used by **5,000+** students, resulting in **1,500+** registered users
- Rewrote the entire codebase from **JavaScript** to **TypeScript**, enhancing maintainability and readability
- Applied Scrum Project Management for continuous improvement in a team of 3 students
- Collaborated with the Office of Academic Affairs at National Taiwan University to develop a new course information system

### RecNet (React, Next.js, PostgreSQL, AWS, Nest.js)

A human-driven recommendation system for academic readings

- Increased user engagement by automating weekly academic paper recommendations with **Nodemailer**
- Enhanced security by implementing **JWT** authentication and authorization, achieving robust **role-based access control**
- Improved maintainability by deploying a documentation site and managing design docs using **Nextra**

### Personal Blog (Svelte, PayloadCMS, GraphQL, Figma, Turborepo)

A place that talks about tech, documents learning notes, and shares my thoughts

- Employed **Turborepo** to streamline the development of backend (**Express.js**) and frontend (**Svelte**) applications, optimizing build times through efficient caching
- Implemented dynamic Open Graph metadata using **Satori** to enhance the visual appeal and context of shared blog posts on social media, boosting engagement and click-through rates

## AWARDS AND GRANTS

[a] **H-W3B Hackathon** 3rd prize

2024

[a] **OSS Hack NYC** Best performance improvement award

2023