

## EMPLOYMENT

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Software Engineer, Co Founder	NTHUMods	Fall 2023 - Present
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- Developed and maintained an open source multi-functional companion app crafted for NTHU students, currently serving 7.5k+ monthly active users, with a total of 753k+ visits.
- Built with NextJS, Supabase(PostgreSQL), Firebase, NodeJS. CI/CD with GitHub, Vercel, Monitoring and balancing with Cloudflare, Sentry. Smart features with tensorflow, OpenCV.
- Collaborating with a cross-functional team of 10+ developers, designers, public relations.

*nthumods.com, github.com/nthumodifications/courseweb*

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Full-stack Developer	NTHU, CTLD	Spring 2023 - Present
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- Engineered a faculty and student grant platform, streamlining ~300 applications per year.
- Built with SvelteKit, Pocketbase(SQLite). CI/CD with GitHub, Coolify, Docker.

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Full-stack Developer	NTHU, EECS	Fall 2023 - Spring 2024
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- Engineered a course demand and graduation verification system, assisting ~300 students.
- Built with NextJS, SvelteKit, Supabase(PostgreSQL), Pocketbase(SQLite), NodeJS.

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IT Consultant, Front-end Developer	NTHU, EMBA	Winter 2023 - Spring 2024
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- Assisted technically with new admission program launch, and improving existing web page.

## EDUCATION

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Hsinchu, TW	National Tsing Hua University	Fall 2022 - Present
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- B.S. in Electrical Engineering and Computer Science
- Undergraduate Coursework: Machine Learning; Image Processing; Computer Networks; IOT; Software Design; Computer Architecture; Cryptography; Algorithms; Data Structures

## TECHNICAL EXPERIENCE

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### Projects

- **Decaptcha: Captcha Solving** (2023 - 2024). Researched and developed image and audio recognition models to automate solving Captcha with Tensorflow, OpenCV, Librosa.  
*github.com/joshimello/nthuaisdecaptcha, github.com/joshimello/securimagedecaptcha*
- **Petrity** (2024). Designed and developed a 3D online turn-based board game with a team of 4 with Cocos creator, Firebase. Designed with Blender.
- **STPurattofomu** (2024). Developed a VR compatible 3D tracker for satellites in airspace with a team of 6 with SvelteKit, ThreeJS(WebGL), N2YO.

### Open Source Contributions

- **Threlte**: 3D framework for Svelte, 2.4k stars. Fixed bugs and added documentation.
- **Fontsource**: Packaged open sourced fonts, 4.9k stars. Fixed UI/UX issues.

## ADDITIONAL EXPERIENCE AND AWARDS

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- **Second Place, Meichu Hackathon** (2023). Restaurant ordering system via fiducial markers.

## LANGUAGES AND TECHNOLOGIES

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- JavaScript; TypeScript; Python; C; C++; Verilog; SQL; Matlab
  - SvelteKit; React; NextJS; Tensorflow; Keras; OpenCV; WebGL
  - Git; Unix; Docker; Blender