Brian J. Chan

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EDUCATION

National Tsing Hua University - College of Electrical Engineering and Computer Science
Bachelor of Science in Program of Computer Science and in Program of Craft Design & Cultural Creativity
Sep 2021 – Jun 2026

SKILLS

Engineering

Programming: C/C++, Python, TypeScript
iOS app development: Swift
Web development (full stack): React, Next.js, SQL
AI integration: LLM-powered apps, document Q&A with RAG, model fine-tuning (LoRA)
Hardware & embedded: ESP32, NXP i.MX 93, Verilog (digital logic design)
Game & interactive: Unity

Design & Prototyping

UI/UX & interaction design: Figma, user interviews, prototyping
3D modeling (CAD): Rhino, Blender
Fabrication: 3D printing, woodworking
Visual design: illustration, poster and banner design
Creative coding & motion graphics: p5.js, Remotion

EXPERIENCE

Foxconn Interconnect Technology (FIT) Jul 2026 – Sep 2026
AI Engineer Intern

- Built custom AI-powered apps for several departments, running on local models deployed on NVIDIA H200 GPUs, to speed up and streamline their workflows.
- Owned an incoming quality control (IQC) app that cuts factory trips: the factory photographs the equipment through guided steps, AI reviews the photos and ticks off the checklist, and staff only do a final in-person check and sign-off.
- Built a bill of materials (BOM) management system that imports BOM spreadsheets and compares versions.
- Helped develop an online judge for technical interviews and improved its UI/UX.
- Polished the UI/UX and made the animations for cpdx-ai-hub, the department's AI hub.

Jiuup
Founder, Lead Engineer & Lead UI/UX Designer

- Built a campus meetup platform that helps college students get past social anxiety and meet people who share their interests.
- Led the UI/UX design and developed the platform with Next.js and SQL.
- Recruited a team of five across marketing, data analytics, ideation, and algorithm tuning.
- Reached 300+ sign-ups and about 50 organized meetups.

Snapy
Co-founder, Lead Engineer & Co-lead UI/UX Designer

- Co-founded an iOS app that recreates the photo booth ritual on the phone, inspired by the street photo booths everywhere in Taiwan.
- Co-led the ideation, design iterations, and UI/UX with a co-founder from the design department.
- Developed the entire app natively in Swift, with real-time, on-device beauty filters powered by Apple's Vision framework.
- Launched it on the App Store after five months of development, with about 2,000 downloads so far.

PROJECTS

Natural Shell · *On-device natural-language shell for macOS*
Skills: Python, LLM fine-tuning (LoRA), training data collection, PyPI packaging

- Published naturalshell-mac on PyPI, a Python package that turns plain Mandarin or English requests into macOS shell commands and runs entirely on-device, so nothing leaves the user's machine.
- Fine-tuned Qwen2.5-3B-Instruct with LoRA (a ~25 MB adapter) on 10,665 examples collected through web scraping and AI generation, reaching 94.6% accuracy on the test set.
- Designed for people who never use the command line because they don't know its syntax, so they can reach much of what their computer can do in plain language.

Applied · *Graduate application tracker*
Skills: Next.js, Supabase, UI/UX design

- Built Applied, a web app that brings each graduate program's requirements and status, from planning to submission to decision, into a single view.
- Started it after seeing friends applying alongside me juggle many different tools to track deadlines and materials, constantly worried that something had slipped through.

SmartGuard · *AI door guard on NXP FRDM i.MX93*
Skills: embedded AI, computer vision, NPU deployment, mobile app development

- Built an AI door guard that flags suspicious strangers at the door and tracks family members' comings and goings.
- Ran real-time person detection, identity recognition, and entry/exit analysis on the board's built-in NPU, with a companion mobile app for real-time alerts and remote monitoring.
- Won 3rd place in the NXP Track at the 2025 Meichu Hackathon.

POMO · *Desktop AI secretary robot*
Skills: ESP32-S3, electronics prototyping, LLM integration, Rhino, 3D printing

- Built a desktop robot that works like a small secretary: through plain conversation, it acts as an AI agent that looks up information and reminds you of things to do, or simply chats and keeps you company while you work.
- Gave it its own personality, with emotions shown on a small screen face and reactions when you touch the top of its head.
- Wired and programmed an ESP32-S3 with a microphone, speaker, and screen, all housed in a 3D-printed shell modeled in Rhino.

Corolla · *Biomimetic bedside lamp*
Skills: product design, laser cutting, acrylic heat bending, woodworking, lighting design

- Designed a lamp for the time people spend scrolling on their phones before bed: enough light to avoid eye strain, while helping the body wind down toward sleep.
- Shaped it after a flower in bloom, with petals laser-cut from acrylic and bent with a heat gun, and a stem and receptacle cut from wood.
- Set the light to a warm 2700–3000K with a low-brightness red option, drawing on research showing these wavelengths suppress melatonin less.
- Aimed the bulb away from the user so the light bounces through the translucent acrylic, making the whole flower glow softly and cast shadows on the wall like branches in bloom.

Health Link · *Cross-hospital health records app (SMART on FHIR)*
Skills: SMARTonFHIR, system architecture, UI design, database integration

- Built a patient app with two teammates for the Taiwan Ministry of Health and Welfare's (MOHW) SMART on FHIR app competition, giving patients one interface to look up their own medical records, medications, and health status.
- Tackled a long-standing problem in Taiwan's healthcare system: patient records are stored in different formats across hospitals, which makes them hard to share and reuse.
- Designed the system architecture, built the interface and its UI design, and integrated it with the database, pulling standardized data across institutions through the SMART on FHIR standard.

LEADERSHIP & ACTIVITIES

2025 Meichu Hackathon Sep 2025
3rd Place, NXP Track (with SmartGuard, see Projects)

NTHU Guitar Club Sep 2022 – Jun 2023
President

- Recruited about 250 members and launched many new club and inter-school events.
- Led a team of 11 officers to put on three large outdoor shows (around 150 people each), two indoor shows (around 100 each), a talk-and-concert with a guest artist (around 150), two club festivals, and regular classes.

NTHU Career Sep 2022 – Jun 2023
Design Team Member

- Helped design banners, posters, and other graphics for the NTHU Career Fair.

Jianguo High School Astronomy Club Sep 2018 – Jun 2019
President

- Organized about eight inter-school events, including stargazing trips, joint exhibitions, and joint club classes.