Hugo Hu

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Education

Stuyvesant High School **New York, NY**
97.15/100 GPA. Clubs: Stuyvesant HS Math Team **June 2026**

Experience

Hack Club — Shelburne, VT and Remote

Blot Hardware Engineering Intern **May 2023 - Present**

- Designed tailor-fit control board with input from mechanical and firmware engineers in KiCAD v7
- Identified mechanical weaknesses and safety concerns in generic USB Type-C power sink boards and designed open source CYPD-3177 based PD sink with superior mounting and reliability
- Worked in-person full-time in Shelburne, VT during summer of 2023, continuing remotely

Sprig Hardware Engineer **April 2022 - June 2023**

- Worked with a small team to create a small handheld gaming console with audio and video output running games with JS syntax in web-based editor
- Created schematic from breadboard prototype and delivered production
- Built and tested several prototype iterations, building 30 boards for play-testing at Assemble, a hackathon in San Francisco I helped organize in Summer 2022
- Responsible for initial batch of 200 boards, procurement of BOM line parts and prebuilt modules

Mail Team Coordinator **July 2021 - June 2023**

- Developed software to utilize USPS Intelligent Mail on outgoing mail pieces
- Drastically reduced costs of domestic shipping by over 50% and international shipping by over 80%
- Improved international customs clearance and delivery speeds significantly amid COVID disruptions

Personal Projects

Dynamic Image Gallery

- Built a photography portfolio with Cloudinary CDN and Supabase SQL database

USB2.0 Type-C Hub

- Designed and tested length-tuned USB2.0 4-port hub PCB with Type-C input and output
- Implemented USB-C Design Guidelines on Configuration Channel (CC) pins

USB2.0 Type-A to Type-C Conversion Primer

- Used multiple application notes from major companies (TI, Microchip, STmicro) to write simplified and concise implementation guide for beginners to PCB design

Personal Website

- Created a personal website with HTML and CSS deployed to Vercel

NXP NTAG I2C Plus EV Board

- Implemented NXP NTAG I2C *Plus* 2K chipset breakout with a Class 4 PCB coil antenna as an NFC tag

Skills, Interests, and Awards

Technical: KiCAD, C, C++, Python, Javascript, HTML/CSS, Ruby, LaTeX
Language: English (native), Mandarin (fluent)
Laboratory: Soldering, reflow and rework equipment
Awards: Gold President's Volunteer Service Award
Interests: Photography, PCB Design, Competition Math