

Hugo Hu

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Education

Stuyvesant High School

Clubs: Stuyvesant HS Math Team, Mu Alpha Theta

New York, NY

June 2026

Experience

Memorial Sloan Kettering Cancer Center

New York, NY

Student Intern, Medical Physics

July 2024 – August 2024

- Wrote C# tools to process and transfer CBCT scans from MSK AWARE to departmental HPCs to train neural-network based ART models
- Used Python to write data preprocessing tools including cropping and binary thresholding

Hack Club

Shelburne, VT and Remote

Hardware Engineering Intern

April 2022 – March 2024

- Assisted dozens of HS students with no previous experience in creating their first PCB as part of the Onboard PCB Grant Program, offering technical expertise and design reviews
- Designed a custom open source motor controller board and CYPD-3177 USB Type-C PD sink for Blot, a custom 2D CNC plotting machine
- Designed a RP2040-based handheld gaming console with audio and display output, running games written with JS syntax in a web-based editor

Mail Team Coordinator

July 2021 – June 2023

- Developed software to implement USPS Intelligent Mail Barcodes (IMB) for no-cost tracking
- Overhauled slow legacy and expensive mail software with self-written database and postage program

Personal Projects

Dynamic Image Gallery

- Built a photography portfolio with Cloudinary CDN, MongoDB and NextJS

USB2.0 Type-C Hub

- Designed and tested length-tuned USB2.0 4-port hub PCB with Type-C input and output

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

- Wrote a concise implementation guide for beginners working with USB Type-C PCB Designs

SAMD21 Corginator

- Designed and tested a Microchip SAMD21-based Corgi-shaped development board

NXP NTAG I2C NFC Evaluation Board

- Designed and tested a reference design for the NXP NTAG I2C *Plus* chipset

Skills, Interests, and Awards

Technical: KiCAD, C, C++, C#, Python, Javascript, HTML/CSS, Ruby, LaTeX

Laboratory: Soldering, reflow and rework equipment

Awards: Gold President's Volunteer Service Award (2021)