

DYLAN CHEN

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EDUCATION

Northeastern University - Boston, MA

Expected May 2028

B.S. in Computer Engineering and Computer Science

GPA: 3.5/4.0

- **Activities & Leadership:** UX Designer (*Sandbox NU*), Software Developer (*Oasis Accelerator*)

SKILLS

- **Hardware & Embedded:** Arduino, CAD, Circuit Design, KiCad, ESP32, MATLAB, I2C, SolidWorks, Oscilloscope
- **Software & Tools:** C++, CI/CD, Git, Python, HTML/CSS, Javascript, Typescript, React, Blender, Figma

TECHNICAL EXPERIENCE

Product Test Engineer Co-op - SharkNinja

January 2026 - June 2026

- Fabricated custom electromechanical testing rigs using Solidworks and Arduino (C++) to automate manual life cycle and material testing for consumer products, increasing daily throughput of test cycles by 600%.
- Developed a Python automation script to automatically parse CSV data from a custom pressure testing rig for 180+ water filter test cycles, formatting data into deliverables and reducing turnaround time by 50%.
- Engineered a Python-based timelapse analysis tool utilizing an Otsu threshold computer vision algorithm and image calibration, cutting post-processing analysis time by 98%.
- Refined hardware testing protocols and tooling tolerances, scheduling weekly 1-on-1 meetings with managers and used cross-functional team feedback to increase accuracy of data and standardize quality assurance metrics.
- Directed cross-team training for project managers, directors, and non-technical staff on custom software tools and authored standardized operating procedures (SOPs) for complex quality test protocols.

PROJECTS

4-Degree-of-Freedom (4DOF) Robotic Arm

July 2026 - Present

- Designing and prototyping a 4-DOF servo-driven robotic arm, using 3d printed components design in Solidworks and using an ESP32 wireless control architecture.
- Developing a full-stack web interface with Javascript, HTML, CSS, and Three.JS rendering for a future control hub GUI and inverse kinematics + PID motor management

Smart Control Knob (NOB)

September 2025 - Present

- Engineering a wireless media knob and macro controller built on ESP32 and custom 3D printed mechanisms
- Mechanical design in Solidworks and ESP32-based circuit prototypes designed with open source documentation

Automated Pill Dispenser (AuPill) - Northeastern University

January 2025 - April 2025

- Led the complete mechanical design and 3D modeling of a functional prototype in SOLIDWORKS, creating a low-cost, modular two-part assembly for easy maintenance and future expansion
- Engineered a 3D printed modular dispensing system, enabling accurate, single-dose dispensing adaptable for any pill shape and contributing to over 85% reduction in medication handling.

INTERESTS

UIUX, Photographing wallpapers, Coffee brewing, Baking without measurements, Climbing rocks, doodles, and noodles