DYLAN CHEN

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EDUCATION

Northeastern University, Boston MA *May 2028*

Bachelor of Science in Computer Engineering and Computer Science GPA: 3.5

SKILLS

- **Hardware & Embedded:** 3D Printing, Arduino, ESP32, FPGA, Fusion 360, MATLAB, Prototyping, SolidWorks
- **UI/UX & Design:** Blender, Figma, Premiere Pro, Photoshop, Wireframing
- **Software & Tools:** C#, C++, Git, GDScript, HTML/CSS, Python, JavaScript, React, Three.js, TypeScript

TECHNICAL EXPERIENCE

Product Test Engineer Co-op - *SharkNinja* *January - June 2026*

- Engineered scalable testing rigs using Arduino and SolidWorks for custom fixtures to automate life cycle, abrasion, and material testing for SharkNinja and competitor haircare products and INTL adapters, increasing throughput to 6000+ total test cycles per day.
- Utilized an Arduino-powered pressure testing rig and Python automation script for 180+ water filters, automating CSV data parsing into deliverables, reducing turnaround time by over 50%, and establishing PD specs.
- Architected Python-based timelapse data analysis program using Otsu threshold image detection with configurable image calibration, auto-generating Excel/Powerpoint deliverables and reducing post-processing analysis by over 98%.
- Lead team meetings with department managers and directors on operating custom software tools and authored testing protocols for non-standardized quality tests while overseeing training test operators on execution.

Remote Support Engineer Intern - *Insights Gaming* *August - October 2023*

- Resolved 50+ technical support tickets with bug reproduction and diagnosis skills within a 3-month period, exceeding customer satisfaction KPI
- Improved Insight’s community forum's UI interface and accessibility by collaborating with UIUX developers to improve client and company technical and community interactions
- Documented user interactions and created 10+ technical guides written in Markdown with organized ticketing via Jira management and document records

PROJECT EXPERIENCE

4-DOF Servo Arm - Personal July 2026 - Present

- Modelling, programming, and wiring a 4-dof servo-powered robotic arm using ESP32 wireless communication
- Web-based integration and Three.JS rendered control interface and inverse kinematics + PID motor management

Nob Smart Control Knob - *Personal* *September 2025 - Present*

- Design a wireless volume knob and macro control device with Wi-Fi and Bluetooth Connectivity via an ESP32
- Mechanical design in Solidworks and circuits prototypes designed with open source documentation

Automated Pill Dispenser - *Northeastern University* *January - 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

Photographing wallpapers, Coffee brewing, Building keyboards, clean quads/edge flow, doodles, and noodles