

Jack Sweeney

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Education

Northeastern University, College of Engineering

Boston, MA

Candidate for BS in Computer Engineering

May 2027

Concentration: Computer Science

GPA: 3.754

Activities: NU Club Running, Forge

Coursework: Calculus 1 and 2 / Differential Equations and Linear Algebra / Probability and Statistics / Physics 1 and 2 / Discrete Structures / Cornerstone 1 and 2 / Fundamentals of Computer Science 1 and 2 / Object Oriented Design / Foundations of Cybersecurity / Computer Systems / Fundamentals of Networks / Circuits and Signals: Biomedical Applications / Embedded Design: Enabling Robotics / Fundamentals of Electronics

Ichabod Crane High School

Valatie, NY

High School Honors Diploma

September 2019-May 2023

Awards: National Honor Society, AP Scholar, National Rural and Small Town

GPA: 99.14

Recognition Program, New York State Outdoor Track and Field Championship Competitor

Projects

Interactive Museum Exhibit – Sustainability and Soil Biodiversity

Boston, MA

Technical Contributor

September 2023 - December 2023

- Designed a game-board using AutoCAD and 3D printed interactive game pieces for an educational exhibit
- Programmed and integrated RFID systems with Arduino to track interactions and control LED feedback
- Presented and achieved 80%+ user satisfaction through hands-on engagement

Forge

Boston, MA

Product Lab Member

September 2024 - December 2024

- Engineered an automatic pill dispenser with biometric authentication system
- Leading hardware-software integration for the motors, fingerprint sensor, speakers, LEDs, and touch-screen
- Developed a user-friendly GUI to manage authentication, configure pill dispensing, mood tracking, and enhance the overall user experience with the device

Three Trios - Game Application

Boston, MA

Technical Contributor

September 2024 - December 2024

- Designed a strategic two-player board game in Java using the Model-View-Controller design principle
- Implemented Strategy pattern to enable flexible AI player behavior and different game-rule variants
- Integrated the Observer pattern, facilitating real-time updates between components of the MVC
- Adapted classmate-developed View code to integrate with our Controller and Model using adapter patterns

Work Experience

Samascotts Orchard

Kinderhook, NY

Supervisor

May 2020 - August 2024

- Managed and oversaw financial transactions with precision, including counting drawers, managing deposit slips, and maintaining product records
- Communicated effectively with the manager to ensure optimal stock levels and enhance overall operational efficiency
- Supervised customer interactions and resolved customer complaints

Skills and Interests

Software Skills: Java, Python, C++, MATLAB

Hardware Skills: Soldering, Circuit Analysis and Design, Microcontroller Programming, Sensor Integration, System Integration

Interests: Running, Weight Lifting, Cut and Sew Clothing, Computer Building