

# SEAN BALBALE

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Portfolio Site: [cherrybrooknetworks.dev/](http://cherrybrooknetworks.dev/)

## EDUCATION

### TRINITY COLLEGE – HARTFORD, CT

#### Bachelor of Science in Electrical and Computer Engineering

#### Bachelor of Science in Computer Science

Coursework: High-Performance Computing, Embedded Systems Design, Deep Learning, Software Engineering, Microelectronic Circuits, Intro to Computer Systems, Data Structures & Algorithms, Calculus 3, Applied Linear Algebra, International Trade.

Extracurriculars: Varsity Athlete - Trinity College Men's Rowing, Technology Chair - The Trinity College Accidentalists.

### NORTHEASTERN UNIVERSITY – BOSTON, MA

#### Bachelor of Science in Computer Engineering and Computer Science

Coursework: Fundamentals of Computer Science 2, Embedded Design: Enabling Robotics, Calculus 2, Discrete Structures, Circuits and Signals: Biomedical Applications, Cornerstone of Engineering 2, Differential Equations and Linear Algebra.

Extracurriculars: Northeastern Chorus, Northeastern Chamber Singers, Baja SAE Racing.

EXPECTED MAY 2027

GPA: 3.65

SEPTEMBER 2023 – DECEMBER 2024

GPA: 3.50

## Certifications

PYTHON (BASIC) CERTIFICATE | HACKER RANK (B32FBD9CF960)

PROBLEM SOLVING (BASIC) CERTIFICATE | HACKER RANK (A40376DF1AF9)

JAVASCRIPT (BASIC) CERTIFICATE | HACKER RANK (0E91673ED66E)

## Skills

PYTHON | JAVA | C++ | TYPESCRIPT | REACT | NEXT.JS | MATLAB |

ARDUINO | FPGA | LINUX | TAILWIND CSS | SQL | ANGULARJS |

GIT | SOLIDWORKS | 3D PRINTING | VERILOG | SYSTEMS ENGINEERING

## Work Experience

### BULLHORN – BOSTON, MA

JUNE 2025 – AUGUST 2025

**Software Engineer Intern.** Contributed to backend services across the Shield and Builders teams, supporting projects for the SEARCH\_AI, ATS\_CRM, and MIDDLE\_OFFICE engineering groups. Executed a major framework migration (BH Boot 1.0.0) centered on upgrading multiple Java applications from Spring Boot 2 to 3, which involved updating javax to jakarta namespaces and refactoring the data access layer. Led a critical security initiative to upgrade core logging dependencies to Log4j2. To further improve code quality, refactored legacy test suites from TestNG and JMockit to JUnit 5 and Mockito and participated in the full software development lifecycle by managing feature branches, submitting merge requests, and conducting code reviews.

### CHERRYBROOK NETWORKS – WESTON, MA

MARCH 2019 – MAY 2025

**Freelance Software and Technical Support.** Started technical support and software development business to support local companies and nearby students and parents. Installed and configured software applications, designed and built custom computers, installed Wi-Fi systems, and automated cloud backups.

### EAST COAST METROLOGY: A DIVISION OF IN-PLACE MACHINING COMPANY – TOPSFIELD, MA

JUNE 2024 – AUGUST 2024

**Metrology Intern.** Conducted in-house and on-site calibrations and precision measurements for a metrology company. Calibrated high-performance measuring equipment, including portable CMMs, total stations, large-volume scanners, and laser trackers. Measured engineering parts for clients to make sure they matched CAD tolerances. Updated internal use CAD models in SolidWorks.

### TITAN ADVANCED ENERGY SOLUTIONS – SALEM, MA

MAY 2023 – JUNE 2023

**Intern.** Assisted the lab team in scanning electric vehicle batteries with ultrasound sensors. Wrote software using Python to visualize ultrasound JSON data as waveforms to complement generated heat maps. Data is used to look for defects in the batteries.

### WESTON PUBLIC SCHOOLS – WESTON, MA

October 2022 – May 2023

**Engineering Teaching Assistant.** Assisted the Weston High School engineering teacher in developing course curriculum and running classes. Wrote and graded quizzes for physics and high school engineering courses. Maintained workshop tools, including laser cutters, 3D printers, band saws, and other woodworking tools.

## Project Experience – See Portfolio Site

**15-112: FAIL EARLY AND OFTEN.** Developed a roguelike game using python for Fundamentals of Programming at Carnegie Mellon. Built using Python and Tkinter.

**CHERRYBROOK NETWORKS.** Personal portfolio website. Built using Next.js, React and Tailwind and to practice using CSS, JavaScript and HTML.

**ELECTRIC BIKE PROJECT.** Converted old bike into electric bike. Designed mounting hardware and timing belt system for electric motor using CAD software. 3D printed and assembled custom parts. Designed and assembled wiring harness for motor.

## Personal

Love to cook. Wrap a mean samosa and a can create a killer katsu ramen. Enjoy lifting weights, running, and getting off an Erg after a 2K sprint.