SEAN BALBALE

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EDUCATION

NORTHEASTERN UNIVERSITY – BOSTON, MA — **EXPECTED MAY 2027**

Bachelor of Science in Computer Engineering and Computer Science — **GPA: 3.60**

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, Northeaster Chamber Singers, Baja SAE Racing

Certifications

PYTHON (BASIC) CERTIFICATE // HACKER RANK (B32FBD9CF960)
PROBLEM SOLVING (BASIC) CERTIFICATE // HACKER RANK (A40376DF1AF9)
JAVASCRIPT (BASIC) CERTIFICATE // HACKER RANK (0E91673ED66E)

Skills

PYTHON // JAVA // C++ // JAVASCRIPT // REACT // NEXT.JS //MATLAB // ARDUINO // AUTOCAD // LUA // TAILWIND CSS // LINUX // WINDOWS // GIT // SOLIDWORKS // 3D PRINTING // SOLDERING // SPATIALANALYZER

Technical Experience

CHERRYBROOK NETWORKS – WESTON, MA — **MARCH 2019 – PRESENT**

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, automated cloud backups.

EAST COAST METROLOGY: A DIVISION OF IN-PLACE MACHINING COMPANY – TOPSFIELD, MA — **SUMMER 2024**

Metrology Intern. Conducted in-house and on-site calibrations and precision measurements for 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**

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

Project Experience

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.

CS 2510 PROJECT 2. Made a Java-based image editing application for Fundamentals of Computer Science 2, at Northeastern. It has an interactive menu and uses seam carving to resize images.

Work Experience

WARBY PARKER – BOSTON, MA & CHESTNUT HILL, MA — **JUNE 2023 – JANUARY 2024**

Apprentice Optician. Worked 5 hours/week during school year in Boston and full time during the summer. Validated prescriptions, took optical measurements, and sold glasses. Greet customers and handle customer complaints calmly. Had the highest sales number for the Northeast for three of the eight weeks while working full-time during the summer.

WESTON PUBLIC SCHOOLS – WESTON, MA — **October 2022 – May 2023**

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.

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.