

BETH LINDENBAUM

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EDUCATION

Duke University – Pratt School of Engineering

August 2023 – May 2027

Double Major – *B.S.E. Electrical & Computer Engineering and Computer Science* | GPA: 3.8/4.0

Durham, NC

Relevant Coursework: Data Structures & Algorithms, Computer Architecture, Signals & Systems, Differential Equations, Linear Algebra, Multivariable Calculus, General Chemistry, Organic Chemistry, Physics, Fundamentals of Electrical and Computer Engineering, Digital Systems (Spring 2025), Microelectronic Devices & Circuits (Spring 2025), Probability (Spring 2025)

Extracurriculars: Women's Club Basketball Executive Committee, Duke Jewish Student Union Executive Committee, Society of Women Engineers, Duke Technology Scholars (D'Tech)

Clearview Regional High School

September 2019 – June 2023

Valedictorian – Rank 1/364 | GPA: 101.30/100

Mullica Hill, NJ

Extracurriculars: Varsity Basketball Captain, Varsity Softball Captain, Honors Wind Ensemble First Chair Clarinet

TECHNICAL SKILLS

Languages: Java, C, C++, Python, Assembly, MIPS, Swift, SwiftUI, HTML, CSS, JavaScript, TypeScript, LaTeX, Visual Basic

Technologies: Logisim, MATLAB, Simulink, Microcontrollers, Arduino, Linux, MacOS, Git, CPUs, Fusion360, Microsoft Office, AutoCAD

Other Skills: Machine Learning, Scikit-learn, NumPy, Pandas, FastAPI, React, Circuit Design, Debugging, Testing, Soldering, Graphic Design

PROJECTS

Audio-visual Notification System for Drone Delivery

Fall 2023 – Present

Duke University – Pratt School of Engineering

Durham, NC

- Designed, programmed and assembled an automatically activated and deactivated device, that simultaneously flashes multicolored LED lights and outputs a range of tones with Arduino IDE and microcontrollers
- Led a presentation of our product at Rural PRO-CARE Health Equity Research Network Annual Meeting 2024
- Obtaining patent protection for our product

Cache Simulator (Java)

Fall 2024

Duke University – Computer Architecture Course

- Coded a simulation of data transfer between CPU, memory, and caches, implemented write-back and write-allocate specifications for L1 cache

File Compression/Decompression (Java)

Spring 2024

Duke University – Data Structures and Algorithms Course

- Coded an algorithm to optimize memory usage of files by implementing binary tree-based encodings for most frequently occurring characters

LEADERSHIP EXPERIENCE

Duke Jewish Student Union Executive Committee

Spring 2024 – Present

Communications Chair

- Manage community outreach to the 700+ Jewish students at Duke University through email and social media
- Document weekly meeting minutes and distribute action items
- Design graphics for Duke Jewish Student Union social media and merch

Duke Women's Club Basketball Executive Committee

Spring 2024 – Present

Social Chair

- Manage social calendar and plan, host, and monitor events for 55+ club members. Promote relationships with other campus organizations
- 2023 & 2024 Kevin Gorter Memorial Scholarship: Awarded for leadership and involvement in the Duke University Sport Club Program

WORK EXPERIENCE

Teaching Assistant – Computer Architecture (COMPSCI 250)

Spring 2025

Duke University

Durham, NC

- Lead weekly recitation sections and office hours. Provide individualized instruction to students, clarifying complex concepts and troubleshooting technical challenges. Collaborate with the professor and other TA's to ensure consistency in curriculum delivery
- Grade and assess student projects and exams in a timely manner, providing valuable feedback for student development

YMCA of the Pines Woodbury

June 2024 – August 2024

Lifeguard & Swim Instructor

Woodbury, NJ

- Instructed swimmers of all ages on swimming mechanics and how to be more comfortable around water in private, one-on-one swim lessons

Dr. Craig M Wax DO, LLC-Family Medicine & Wellness

June 2022 – March 2023

Medical Assistant

Mullica Hill, NJ

- Maintained friendly and professional relations with patients while recording important medical information such as allergies and medications
- Performed EKGs and urinalyses; aided doctor in administering shots