

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: 3.73/4.0

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, Microelectronic Devices & Circuits, Probability, Molecular Biology

Extracurriculars: Women's Club Basketball Executive Committee, Duke Jewish Student Union Executive Committee, Duke Technology Scholars (DTech), Society of Women Engineers, Jewish Service Club Vice President

Awards: 2023 & 2024 Kevin Gorter Memorial Scholarship, DTech Scholar

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, Verilog, C, C++, Python, Assembly, MIPS, Swift, SwiftUI, HTML, CSS, JavaScript, TypeScript, LaTeX, Visual Basic

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

Other Skills: Scikit-learn, NumPy, Pandas, FastAPI, React, Valgrind, gdb, Circuit Design, Debugging, Soldering, Graphic Design

PROJECTS

Pac-Man

Spring 2025

- Built a Pac-Man arcade game on FPGA using Verilog, MIPS assembly and a custom processor; displayed on VGA and joystick-controlled
- Integrated Verilog modules and assembly code via register-mapped I/O to track scoring, lives, and game state resets
- Designed FSMs for sprite movement, collision detection, animations, a high score system, and game reset logic (win/loss conditions)

Audio-visual Notification System for Drone Delivery

Fall 2023 – Spring 2025

- 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

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

LEADERSHIP EXPERIENCE

Duke Jewish Student Union Executive Committee – Communications Chair

Spring 2024 – Spring 2025

- 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 – Social Chair

Spring 2024 – Spring 2025

- 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

Duke Technology Scholars (DTech) Leadership Team – Vice President of PrepTogether Program

January 2025 – March 2025

- Led PrepTogether, a summer initiative supporting underclassman women in tech by building interview readiness, industry skills, and confidence

WORK EXPERIENCE

Embedded Linux Software Engineer Intern

June 2025 – August 2025

Schneider Electric

Raleigh, NC

- Develop and debug embedded systems using C and Embedded Linux, contributing to firmware design and validation testing
- Participate in design reviews, create test plans and documentation, use tools like GitHub and Jenkins for build and configuration management

Teaching Assistant – Computer Architecture (COMPSCI 250)

January 2025 – May 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

Medical Assistant

June 2022 – March 2023

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

Mullica Hill, NJ

- Supported clinical operations by recording patient medical information, maintaining professional interactions, performing EKGs and urinalyses