Eli Intriligator

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EDUCATION

Tufts University, Medford, MA

May 2023

- Bachelor of Science in Computer Science
- Bachelor of Science in Science, Technology, and Society
- Honors: Phi Beta Kappa, summa cum laude, Dean's List (all semesters)

WORK EXPERIENCE

Full Stack Engineer

Sep 2021 - May 2022

Tufts JumboCode, Medford, MA

- Collaborated with an Agile student team to build a web app for event management, display, and registration, connecting 1000+ families with community programs at the Bergen Family Center (React).
- Implemented 10+ backend components for users to login, filter, and register for relevant events (Firebase).
- Built frontend interface for upcoming events, reducing page load time by 15% with image optimization (CSS).

Software Engineer in Computer Science Department

Mar 2021 - Jan 2022

Tufts University, Medford, MA

- Engineered VR prototype for visualizing high-volume datasets in Unity, a central feature of a \$1M project sponsored by the Department of Defense (C#).
- Simulated real-time particle systems that dynamically respond to user input, with option to import CSV data.

Software Engineer in Human Factors Lab

Jun 2020 - Mar 2021

Tufts University, Medford, MA

- Developed VR environment in Unity to envision novel methods of searching airport baggage, deploying customized shaders to simulate realistic scans; research performed in partnership with the Department of Homeland Security (C#).
- Engineered simulation of an airport baggage screening console to record user performance metrics across 4 unique hardware devices.
- Utilized the simulation to conduct a usability test and optimize UX of airport screening, achieving 20% reduction in baggage search time at major airports.

Software Engineering Intern

May 2019 – Aug 2019

Lexiwave Technology, Boston, MA

- Developed object-detection algorithm for new radar modules, improving fire safety and climate control systems in several indoor shopping malls as part of a technology partnership with Infineon (C).
- Designed a calibrated state machine to process microwave signals from Doppler radar transceivers.

PROJECTS

Portfolio Website Oct 2023

- Built polished, professional website with responsive layout, engaging animations, adjustable theme, and fully functional contact form (TypeScript, Tailwind CSS).
- Leveraged Server-Side Rendering and Server Functions in Next.js to optimize performance and improve UX.

Sleep Tracker API

Jun 2023

- Developed scalable RESTful API for a sleep tracker application, defining 5 endpoints to handle client requests to log sleep data, deliver reports, and analyze trends (Flask).
- Designed and implemented PostgreSQL database with CRUD operations.
- Leveraged Docker to containerize the database, ensuring consistent development and testing environments.

Image Compressor and Decompressor

Oct 2021

- Engineered image compression program, achieving 70% reduction in file size by implementing algorithms for color space conversion, quantization, discrete cosine transform, and bit packing (C).
- Built decompressor to restore compressed images to their original format with minimal 2% information loss.

SKILLS

Programming Languages: Python, C++, C#, C, JavaScript, CSS, HTML, SQL, Bash

Frameworks and Technologies: React, Next.js, Docker, Git, Flask, Tailwind CSS, RESTful API, Agile Development

Databases: PostgreSQL, Firebase

Software Packages: Unity, Xcode, Visual Studio Code, GDB, Wireshark, Vim