

LUKE PARRELLA

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EDUCATION

Boston University

September 2022- Present

Candidate for BS in Computer Engineering

Relevant Courses: Signals & Systems, Computer Organization, Computer Networking

RESEARCH EXPERIENCE

June, July 2024

University of South Carolina, Summer REU

- Upgraded an existing MATLAB program and developed two new types of artificial microscopy images for DNN autoencoder training.
- Applied computational geometry to map 3D points onto 2D projections.
- Delivered a final comprehensive presentation covering the entire research project, highlighting the performance enhancements made to the autoencoder, and how it is improved by our new images.

BOSTON UNIVERSITY

Captain Capacity - Digital room occupancy monitor

- Programmed logic for real time room occupancy monitoring, adhering to building safety protocols.
- Developed a unique one-way automatic door locking system, allowing for occupants to leave without anyone being able to enter when room capacity is reached.
- Delivered a final product pitch, demonstrating valuable presentation and marketing skills.

ID Finder App

- Programmed a mobile phone application that puts a system in place for students who lost their school IDs so they can retrieve them without having to pay.
- Designed user interface and multiple application pages to ensure smooth user experience.
- Integrated app with a user database for easy access by any organization member.

INDEPENDENT PROJECTS

Fraternity App

- Designed a mobile app using FlutterFlow for Greek life event scheduling and communication.
- Prototyped the user interface in Figma for a pleasant and appealing user experience.

LEADERSHIP AND OUTREACH

Phi Kappa Tau Zeta Pi Chapter, *brotherhood chair*

September 2023 - Present

- Organized events including movie nights and sports tournaments to promote engagement and strengthen brotherhood.

The Foundry Montessori, *education volunteer*

July 2024

- Assisted faculty managing young children to keep them safe and engaged during daily operations
- Learned fundamental principles of children's education from a highly experienced Montessori teacher, furthering my interest in the education system as a whole

SKILLS

C++ , C , MATLAB, Verilog, Google Sheets, Presentations
