

Matthew Leopold

leopolmb@bc.edu • (908)-500-8327 • matt-leopold.com

Sophomore at Boston College Studying Computer Science

PROFESSIONAL EXPERIENCE

Boston College Engineering Department, Boston, MA

2024 - Present

Paid Research Position on Department Research Project

- Image analysis in Python to produce Normalized Difference Vegetation Index (NDVI) images of farmland.
- Conduct long term observations of land to track plant health over time.
- Managed API calls and local processing to maximize credit usage

Bridge2AI, Weill Cornell, New York, NY

Summer 2024

Participant in competitively selected NIH-funded internship

- Created automated Python scripts to deidentify voice data
- Made KNN and DCGAN AI models in PyTorch to generate and identify coughs
- Led hackathon team and presented findings to a panel of judges at national program meeting

Raritan Yacht Club, Perth Amboy, NJ

Summer 2023

Sailing Instructor

- Taught students aged 8 – 16 how to sail, managing young sailors through dangerous shipping channels

EDUCATION

Boston College, Computer Science (B. S.), GPA: 3.91

Graduation: 2027

Computer Science Coursework:

- Algorithms, Formal Methods, Logic, Randomness, Web Development, Computer Systems

Math Coursework:

- Linear Algebra, Differential Equations, Multivariable Calculus, Randomness

COMPUTER SCIENCE - LANGUAGES: PYTHON, JAVA, C, JAVASCRIPT, CSS, HTML

Projects (full list at Matt-leopold.com)

- Project Parking - Image Analysis Web App
 - Used OpenCV to determine whether parking spots are filled in security camera footage
 - Stored parking lot data in NoSQL server
 - Built web app to find nearest parking lot to a destination, integrating with google maps and NoSQL server
- C Memory Management Emulator
 - Recreated Malloc tool in C by directly manipulating memory
 - Manually controlled heap memory allocation through pages
- Arduino LED Lighting Control System
 - Programmed Arduino to control LEDs through DMX standard
 - Soldered and programmed buttons to control light settings

EXTRACURRICULARS

Boston College, Chestnut Hill, MA

2023 – Present

Lighting Designer

- Led the planning, build, and design process for multiple theatrical productions
- Communicated with directors, staff, and other designers to align visions and create designs

WZBC, Chestnut Hill, MA

2023 – Present

Radio Host

- Host weekly live FM show playing indie rock music
- Mentor new DJs on how to run a show, how to speak on air, and how to choose music