

LAURENCE R. MULLEN

laurencemullen99@gmail.com	laurencem.online
(954) 348-0238	github.com/Laurence-RM
Brooklyn, NY	linkedin.com/in/laurence-mullen

EDUCATION

Bachelor of Science in Computer Science, Cum Laude

August 2018 - April 2022

University of Florida, Gainesville, FL

- Minor in Environmental Science
- Cumulative GPA: 3.8/4.0
- Coursework: Data Structures and Algorithms, Databases, Data Science, Design Patterns and OOP, Networking, Operating Systems, Computer Security, Statistics, Numerical Analysis, and Performant Programming in Python

TECHNICAL SKILLS

Languages: Python, C++, C, Java, JavaScript, HTML/CSS, SQL, Julia, R, MatLab

Frameworks & Libraries: React, Node.js, Express.js, Qt, VTK, OpenCV, cuDNN, NumPy, SciPy, Scikit-learn

Tools: Git, Docker, Ansible, Linux, MongoDB, CMake, Nginx, Heroku, APIs, Microsoft Office, Agile/Scrum

- Persistent debugger, skilled at using Boolean search strategies to find solutions and information
- Leadership and management skills as an Eagle Scout
- Dual Citizen of The United States and The United Kingdom

PROJECTS

Symmetry Trap (Joint Track Auto Plugin) | C++, Qt

January-April 2022

- Created plugin to aid the UF BRIO lab in researching Automated Model-Image Registration of Joint Kinematics
- Written in C++ utilizing Qt and VTK for GUI, and OpenCV, cuDNN, and libtorch toolkits
- Replaced a brute force algorithm using linear algebra concepts, reducing runtime to 1.5% of previous time
- Planned sprints and created quality UML diagrams, documentation, and presentations

GaTorr | Java

August-December 2021

- Peer to Peer file sharing program with custom message protocol over TCP based on the BitTorrent protocol
- Peers dynamically choke/unchoke neighbors, communicate interest, make requests, and track file pieces

AlgoRythm | Python

May-July 2021

- Extensively customizable real-time audio visualizer that changes dynamically based on the song and cover art
- Built on the PyGame GUI framework, it utilizes PyAudio, NumPy and SciPy for performant processing of data
- Responsible for Windows media and Spotify API integration, and implementation of GUI elements
- Optimized code performance and readability using polymorphic OOP concepts for different visualizer styles

Activist Agenda | JavaScript, React, Node.js, MongoDB

June-August 2020

- Collaborated in a team to develop a full-stack web application in support of Black Lives Matter movement
- Built using MERN stack and deployed on Heroku
- Implemented MailGun Email API and OpenCage Geocoding API
- Gained experience planning Agile development sprints, writing documentation, and communicating with a client

EXPERIENCE

Freelance Website Developer

Fort Lauderdale, FL

August 2018

- Developed and maintained modern websites tailored to meet needs of clients
- Built from scratch using HTML, JavaScript, and CSS and deployed on WordPress