LAURENCE R. MULLEN

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EDUCATION

Bachelor of Science in Computer Science, Cum Laude

August 2018 - May 2022

University of Florida, Gainesville, FL

- Minor in Environmental Science
- Cumulative GPA: 3.77/4.0
- Relevant Coursework: Design Patterns, OOP, Data Structures and Algorithms, Databases, Data Science, Networking, Operating Systems, Computer Security, Statistics, and Performant Programming in Python

TECHNICAL SKILLS

Languages: Python, C++, C, Java, JavaScript, HTML/CSS, SQL, Julia, R, MatLab, Bash Frameworks & Libraries: React.js, Express.js, Flask, Qt, NumPy, SciPy, Scikit-learn

Tools: Git, Node.js, MongoDB, CMake, Docker, Ansible, Linux, WSL, Nginx, Postman, Visual Studio

EXPERIENCE

Contract Full Stack Developer | Worth Avenue Yachts | Fort Lauderdale, FL

September 2022 - Present

- Sole developer of a CRM system designed to optimize and assist yacht charter brokerage operations
- Proposed, designed, and implemented a full-stack web application using React.js, Flask, HTML/CSS, and SQL
- Implemented features to help manage client inquiries, optimize daily workflow, and assist with data analysis
- Significantly increased broker productivity and improved charter client retention in initial testing

Undergraduate Research Assistant | Biomechanics and Robotics Lab | Gainesville, FL

January – May 2022

- Aided the UF BRIO lab to develop a program for Automated Model-Image Registration of Joint Kinematics
- Wrote performant code in C++ and Python; utilized Qt, VTK, OpenCV, cuDNN, and libtorch toolkits
- Replaced an inefficient exponential-time algorithm using linear algebra concepts, reducing runtime by 98.5%
- Led and planned sprints for a team of six; created high-quality UML diagrams, documentation, and presentations

Part-time Freelance Web Developer | Fort Lauderdale, FL

August 2021 - October 2022

- Developed and maintained websites for clients in the yachting industry using HTML, CSS, and JavaScript
- Communicated frequently with clients to ensure that requirements and features were designed to satisfaction

PROJECTS

Activist Agenda – Activism-focused Social Media Site | React.js, Node.js, Express.js, MongoDB

- Developed a web application on the MERN stack in support of social justice movements
- Responsible for frontend components, integrating email and geocoding APIs, and Heroku deployment
- Gained experience using Agile methodology, creating documentation, and communicating with a client

AlgoRythm - Audio Visualizer | Python, NumPy, SciPy

- Created a customizable real-time audio visualizer that dynamically changes based on the song and cover art
- Built using the PyGame GUI framework and PyAudio, NumPy, and SciPy for performant data processing
- Implemented Windows media and Spotify API integration, as well as various GUI elements
- Optimized code performance and readability using polymorphic OOP concepts for different visualizer styles

"Homelab" - Self-hosted Experimentation Server | Ubuntu, Raspbian, Python, Bash

- Automatically set up environments using Ansible and deployed containerized applications with Docker
- Reverse-proxied network using Nginx, SSL/DNS with Cloudflare, and remotely linked storage with Gsuite
- Host websites, game servers, media, and more while ensuring optimal uptime and performance for users