



Dominic Mason

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Education

Virginia Commonwealth University

May 2024

Bachelor of Science in Computer Science, Concentration in Software Engineering

Richmond, VA

Relevant Coursework

- **Software Engineering:** Utilized AWS EC2 to connect to virtual instances of Ubuntu Linux machines for coding tasks
- **Software as a Service:** Designed and deployed full-stack web applications with Flask, using Docker for containerization
- **Database Theory:** Created a MySQL database and Flask API to interact with it, utilizing SQLAlchemy for ORM
- **Algorithms and Data Structures:** Developed Java programs for selection and dynamic programming algorithms
- **Software Analysis and Testing:** Implemented unit and integration tests for a set of Java classes using JUnit

Experience

A Round Entertainment

December 2024 – Present

Software Engineering Intern | React Native, Expo, Node.js

Remote

- Developed and enhanced React Native features for Joopi mobile app, focusing on UI/UX and performance optimization
- Integrated RESTful APIs to support key features such as authentication, profile management, and secure data handling
- Utilized the Expo ecosystem, leveraging its tools for cross-platform compatibility and enhanced performance
- Collaborated with team members for code reviews and daily standups to deliver quality results within sprint timelines

Spring Oaks Capital, LLC

May 2022 – September 2022

Software Engineering Intern | React, Material-UI, FastAPI, Pandas, AWS S3


Richmond, VA

- Created a React web application and FastAPI endpoint to convert debt portfolio Excel sheets into alternative formats
- Translated functional requirements from wireframes into reusable components using the Material-UI library
- Improved functionality by enabling conversion of 25 additional file formats using Pandas for data transformation
- Configured AWS S3 buckets for efficient data storage and exchange, managing large file uploads and downloads
- Contributed to scrum meetings, sprint planning, sprint reviews, and demo presentations within an Agile environment

Projects

Rick and Morty Personality Quiz | React, CSS, Netlify | 

- Built a React web application using the Rick and Morty API to match users with characters based on personality traits
- Incorporated real-time data integration with Axios ensuring seamless performance across diverse user interactions
- Enhanced user experience through interactive quiz modules, achieving over 700 user engagements
- Deployed to Netlify through a CI/CD deployment pipeline, using GitHub Actions to automate the process

Online Shopping Website | Flask, SQLAlchemy, HTML, JavaScript, CSS | 

- Developed a shopping platform with a responsive user interface using HTML, JavaScript, CSS, and Tailwind CSS
- Set up RESTful API endpoints to handle product data and cart functionalities, using Flask for back-end services
- Managed and manipulated product data using SQLAlchemy, providing efficient database interactions and operations
- Implemented server-side user authentication and session management in Flask using secure session cookies

WiFi Sensing-based Occupancy Monitoring Project | Raspberry Pi, ESP32, Python

- Developed a non-invasive system to monitor room occupancy using WiFi signals, minimizing privacy concerns
- Utilized Raspberry Pis and ESP32 devices to collect Channel State Information (CSI) data for occupancy detection
- Implemented machine learning models using Keras API in Python to process CSI data, achieving up to 92% accuracy in predicting the number of occupants; visualized data and results with Matplotlib

Skills

Languages: Python, JavaScript, Java, HTML, CSS, SQL

Developer Tools: Git, Docker, AWS (EC2, S3), Atlassian Tools

Libraries/Frameworks: React, React Native, Django, Flask, FastAPI, Pandas

Database Management: MySQL, SQLite, SQLAlchemy

Operating Systems: Windows, Linux/Unix, MacOS