Alex Heasley

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Full Stack Engineer | Software Engineer

TECHNICAL SKILLS

Programming Languages: JavaScript, Python, HTML, CSS, Typescript

Frameworks/Libraries: React, Node.js, React Native, Express.js, Flask, Redux, SqlAlchemy, Next.js,Tailwind Css,Bootstrap, SocketIO, REST, ShadCDN

Data/Databases: SQL, PostgreSQL, SQLite, MySQL

Tools & Platforms: Docker, Kubernetes, Git, Pytest, Amazon Web Services (AWS), Google Cloud Services, Google Colab, Visual Studio, Wordpress, PowerShell,Portainer

Methodologies: OAuth, Object-Oriented Design, Test Driven Development (TDD), Functional Programming, Agile, SCRUM

Others: Linux, Web Servers, Client Management, Customer Service, Data Analysis

PROFESSIONAL EXPERIENCE

Full Stack Engineer: [Mentor A Promise Inc](#), Remote   **Mar 2024 – Current**

- Designed the database and SPA for Mentor A Promise, an educational charity based in Brooklyn NY. Worked in a team of three to deliver a top tier SPA for both mobile and desktop.
- Personally implemented WebSocket technology to ensure real-time updates across the entire site, eliminating the need for page refreshes and enhancing user experience.
- Initiated the use of Next.js for its powerful server-side rendering capabilities.
- Leveraged Docker to containerize the application.
- Employed a microservices architecture with separate Next.js and Flask backends, allowing the team to work independently on different components, facilitating parallel development and improving scalability.
- Deployed and managed applications using AWS EC2 and LightSail, optimizing performance and scalability.
- Utilized Portainer Docker for efficient container management and deployment, ensuring seamless integration and consistent environments.

PROJECTS

TableTopGalaxy   [Github](#) | [Live](#)   **Jan 2024 – Feb 2024**

- Employed Tailwind CSS, crafting a responsive interface that enhances user interaction across diverse devices.
- Integrated OAuth authentication to streamline the login process.
- Innovatively combined localStorage, Redux, and database "flags" to implement a robust autosave functionality.
- Advanced the integration of localStorage and Redux to optimize performance by minimizing the use of thunks.
- Designed intelligent thunks that load all applicable data, dependent on database flags to know how far to load.
- Developed an SVG-based visualization framework for dynamic game state representation, employing conditional rendering to adaptively showcase game conditions. Also Integrated the 'Fantastic Dice' library to enrich user experience with animated dice roll simulations.
- Enhanced user experience by implementing AWS S3 integration for character pictures and game pieces, enabling users to seamlessly add, edit, or delete media assets.

Moodify   [Github](#) | [Live](#)   **Sept 2023 – Oct 2023**

- Collaborating with four, Utilized Python and SQLAlchemy for concise querying and updating of models.
- Leveraged SQLAlchemy's back_populate feature to backfill multiple values to the user.
- Implemented PostgreSQL, a dependable RDBMS, to store data in structured tables as well as allow multiple connections to the database. Resulted in greater scalability,security, and protected data from loss.
- Utilized Docker to containerize our project, enhancing portability and ensuring seamless deployment.
- Personally designed the mobile view following responsive design protocols.

EDUCATION

Full Stack Certification, Computer Engineering, App Academy, San Francisco CA   **Nov 2023**

Associate Arts, Liberal Arts, JCCC, Overland Park KS   **June 2011**