Alexander W. Rubin

Full Stack Software Engineer React-Redux, JavaScript, FastAPI-Python, PostgreSQL

Summary: Full-Stack Software Engineer specializing in Python (FastAPI) | JavaScript (React/Redux, Vue) | PostgreSQL. I have experience with AWS and Docker. My current focus is learning the fundamentals of C++, with the intention of exploring the JUCE framework, and building a music education website based on my experience as a music education entrepreneur. I have built applications for personal blogging, service management, music-ed, and the automotive-retail industry.

Projects

Simpl (<u>Code)</u> August 2024 - Current

A full stack application for service industry management built with **JavaScript-React** and **Redux** in the frontend and **Python (FastAPI)/PostgreSQL** in the backend. Secure login and user authentication through use of **JTW/OAuth2** and **Cookies**.

- Engineered reusable **React** components with a focus on consistent design patterns and maintainable code, particularly in the ListAppointment and ListSales components, in which a combination of business logic and filtering logic combines, delivering accurate business data
- Implemented global state management using **Redux**, creating a predictable and accessible data flow pattern that improved application performance and user experience
- Developed a component-based UI architecture using Bootstrap.css, ensuring consistent styling and responsive design across the application

Guitar Neck Project (<u>Code | View Site</u>) May 2024

A front-end only, single page application for music education built with **React.js**.

- Managed state efficiently using **React.js** to manipulate a **CSS** grid (which is a guitar neck diagram) to illuminate specific areas on the grid (neck), based on user input; the user can choose specific pitches, as well as intervals and triads based on the chosen pitch
- Deployed on the web using **Vite.js** and **GitHub Pages** for fast, reliable access
- Received positive reviews from musicians in the tech field complimenting this software as being accurate, applicable, and "really useful..." for their educational needs

Experience

Long Beach Guitar School - Owner / Start-up Founder / Manager / Teacher September 2017 - December 2023

Hobbyist music education facility in Long Beach, NY

- Maintained a private lesson studio of 30+ students and 3+ ensemble coaching sessions weekly
- Organized/Directed 4+ annual public performances resulting in invigorated customer loyalty
- Created, executed, optimized ALL business operations leading to net-profit within 4 years
- Managed/Trained a teaching staff of ~12 music teachers

Fat Cat Jazz Club - Audio Engineer / Stage Manager November 2013 - March 2020

Nightclub featuring billiards, ping-pong, board games and live jazz, 7 days a week until 4am

As audio engineer:

- Operated the live sound console during live performances
- Setup/Breakdown stage based on ensemble personnel, under extreme time pressure
- Was personally responsible for safety of musicians, patrons, and bar staff

As stage manager:

- Served as sound engineer 3x per week
- Managed staffing and scheduling for sound engineer staff
- Responsible for maintenance, repairs, and updating live sound equipment

Education

- Hack Reactor, by Galvanize Advanced Software Engineering Bootcamp (2024)
- Crane School of Music at SUNY Potsdam BM in Classical Guitar Performance (2006)