David Garcia

SOFTWARE ENGINEER

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WORK EXPERIENCE

Software Engineer

Mometrix Test Preparation   October 2021 - Present

- Technical lead for the development of a rich text editor built using the ProseMirror toolkit and its implementation into the company's internal PHP-based task platform resulting in improved user experience and the ability to write task updates in greater detail, facilitating the creation of over 100,000 comments and updates in one year of use.
- Lead developer on a front-end hierarchy editor to load, create, and modify hundreds of database hierarchies at a time using React and TypeScript to be used for editing content on the company's online learning platform which accounts for 20% annual revenue.
- Designed a web-based IV drip rate calculator for healthcare students, attracting 20,000 page views within nine months.
- Developed a web calculator that parses mathematical expressions, displays the steps taken to achieve the result, and demonstrates each step's relation to the order of operations for basic arithmetic students.
- Leveraged Python and the JavaScript fetch API to dynamically retrieve, update, and cache database content, ensuring consistent page loading speeds and intuitive user interactions.

Software Engineering Intern

Application Factory, Inc   April 2021 - October 2021

- Utilized the Angular framework with HTML, SASS, and TypeScript to update the company's website.
- Diagnosed and resolved critical bugs in the flagship application using .NET framework, WPF, and C#, enhancing system stability.
- Refactored code to adhere to the MVVM design pattern, enhancing logic separation and maintainability.

Math and Computer Science Tutor

Lamar University Tutoring Center (STAR Services)   January 2020 - December 2020

- Tutored students in one-on-one sessions in math subjects up to Calculus 1.
- Tutored a group of ~7 students once a week in contemporary mathematics for one semester.

PROJECTS

Watch Algorithms | https://joegar000.github.io/watch-algorithms

- Single page application constructed using TypeScript, React, and the React Router library.
- Applied CSS transitions to animate the sorting patterns of various algorithms.

AI Language Partner | https://github.com/joegar000/ai-language-partner

- Next.js application for chatting with a Chat GPT model, primarily to practice a new language.
- Implemented OpenAI's API for chat completions and text to speech.
- Styled components with Tailwind CSS.

EDUCATION

Bachelor's Degree in Computer Science

Lamar University | Beaumont, TX   August 2018 - May 2022

Minor Degree in Mathematics

Lamar University | Beaumont, TX   August 2018 - May 2022

TECHNICAL SKILLS

Frontend

HTML/CSS • Bootstrap • TypeScript/JavaScript • jQuery • React • Jest • React Testing Library • ProseMirror

Backend

Python • Flask • Jinja • Pytest • Java • PHP • C# • REST API • SQL • PostgreSQL

Tooling

NPM • Pip/Pipenv • Git/GitHub • Docker • Vim/Neovim