Shivam Ratnani

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EDUCATION

University of Wisconsin-Madison: BS - Computer Science   September 2022 - May 2024
University of Wisconsin-Madison: BS - Data Science   September 2022 - May 2024

WORK EXPERIENCE

Couillard Solar Foundation | Software Developer   August 2023 - Present
- Currently developing an interactive web-based visualization tool to showcase the solar energy output from seven arrays in Deerfield, WI, highlighting the impact and efficiency of renewable energy in small communities.
- Web application uses Svelte framework and Vite for efficient build and deployment processes as well as Node.js, React.js, Svelte, JavaScript, CSS, Plotly.js, ESLint, TypeScript, Cron, and SQL to implement interactive UI components and data visualizations with Svelte, ensuring a responsive and user-friendly experience.
- Integrated Firebase and Github Actions for real-time database interactions, authentication, and hosting services.
- Developed a strategy for state management and HMR, paving the way for easy migration to SvelteKit for future scalability.

PerkinElmer Inc. | Information Technology Intern   July 1st 2021 - August 30th 2021
- Worked with remote users to cross-network and provide files to remote employees.
- Operated and managed a network involving user accounts, company computers, doorcards, printers, and server storage.
- Repaired problematic computers and set up computers for new employees.
- Managed customer accounts using Google's admin suite.
- Created documentation for application usage, system integration, and data transfer.

PROJECTS

Website | github.com/shivamratnani/shivamratnani.github.io
- Created a website using HTML and CSS Styling
- Improvised my website using React.js and Material UI elements allowing it to contain a dark mode feature, reactive buttons, and mobile device compatibility
- Uses Github Actions to host React app on shivamratnani.github.io and a server through AWS to host a personal photography website

Mobile Task Application | github.com/shivamratnani/Flutter-Task-App
- Specializes in cross-platform and native iOS app development, utilizing Flutter and SwiftUI to deliver a highly responsive task management application that adheres to Apple's Human Interface Guidelines.
- Enhances user experience by implementing core iOS design elements, animations, and integrating features like widgets and Siri shortcuts for optimal app performance on iOS devices.
- Integrates advanced functionalities such as real-time notifications and iCloud syncing, ensuring seamless task management and device synchronization for users.

Amazon Web Scraper | github.com/shivamratnani/Amazon-Web-Scraper
- Engineered a Python scraper to collect Amazon product data, utilizing BeautifulSoup, Selenium, and requests for web parsing, browser automation, and HTTP interactions.
- Designed data storage solutions using CSV format for the efficient organization and retrieval of product names, prices, ratings, reviews, and URLs.
- Deployed dynamic browser driver management and robust error handling, ensuring seamless functionality and data accuracy.
- Packaged the application into an executable for ease of use, with documentation highlighting maintenance and update requirements.

Connect 4 Game | https://github.com/shivamratnani/Connect-4
- Developed a 2 player game of Connect 4 containing multiple difficulty levels with a graphical user interface, demonstrating proficiency in object-oriented programming and game development logic.
- Designed game state management using custom methods for horizontal, vertical, diagonal, and draw checks within the checks class to determine game outcomes.
- Implemented user interactions through the Java Scanner class for input handling, allowing players to place pieces on a graphical interface.
- Constructed a user-friendly graphical interface using Java Swing, allowing for interactive gameplay with button-based column selections and panel-based board visualization.

SKILLS

Languages: Java, Python, C#, C, C++, HTML, Javascript, CSS, R, SQL, SwiftUI, TypeScript, LaTeX
Frameworks: React, Svelte, Node.js, Jquery, TensorFlow, Keras, Plotly
Tools: Git, Github, Github Actions, Docker, AWS, Google Cloud Platform, Microsoft Azure, R Studio, VS Code, Intellij, Eclipse, PyCharm, XCode, Vite, ESLint, Firebase
Libraries: Material UI, pandas, NumPy, Matplotlib, REST APIs