Kaushal Kumbagowdana

925-922-2404   kaushalsk09@gmail.com   Portfolio   LinkedIn   Github

SKILLS

Languages: Javascript, Ruby, SQL, C#, Python, HTML5, and CSS3
Frameworks and Libraries: Express, MongoDB, Ruby on Rails, PostgreSQL, Action Cables, React, Redux, .NET6, and AWS
Tools and Practices: OPP, TTD, Git, GitHub, and Webpack

EXPERIENCE

Software Engineer / Research Associate
S2 Genomics | Livermore, CA   Jun 2021 - Sep 2022
- Promoted from Research Associate to Software Engineer after 4 months based on high productivity efforts.
- Designed and developed in-house R&D application utilizing .NET 6 and legacy code, resulting in more efficient and feature-rich workflow for cell and nuclei isolation experiments compared to commercial application.
- Implemented and contributed to the development of next-generation product software, enhancing instrument communication for efficient diagnostics, calibration, temperature control, and cell/nuclei isolation protocols.
- Refactored commercial instrument's legacy code to enhance flexibility and improve protocol run time for cell and nuclei isolation.
- Developed and integrated two troubleshooting scripts, resulting in faster and more accurate troubleshooting process. Scripts were also integrated into commercial instrument baseline process, improving assembly efficiency by 30%.
- Conducted thorough investigations to resolve software and device-related issues during instrument troubleshooting.

PROJECTS

BINS | *(React/Redux, Rails 7, PostgreSQL, ActionCable/Websockets)*   **live | github**
- Employed the ActionCable WebSocket library to deliver seamless, high-performance user experience similar to Slack.
- Incorporated one-to-many polymorphic table integration at the database level, achieving DRYer backend code by decreasing PostgreSQL database tables by 25%, and streamlined Rails concerns on the model and controller level.
- Implemented the React-Redux cycle to create a centralized global store that dynamically dispatches RESTful actions based on user location and integration status.

ViewFinder | *(MongoDB, Express, React/Redux, Node)*   **live | github**
- Collaborated with 4 engineers to develop a full-stack MERN application enabling photographers to showcase their work and discover new photography locations in California.
- Managed backend routes and database schema integration and design, and collaborated with front-end engineers to implement efficient techniques to minimize response payload and enhance performance.
- Integrated server-side Google Maps API to implement reverse geocoding within backend router, streamlining user features and boosting user experience by 35%.

Faulty Rocket | *(Vanilla Javascript, HTML Canvas)*   **live | github**
- Spearheaded the creation and design of Faulty Rocket, typing game where players aim to exceed WPM thresholds in each level to launch a rocket into space.
- Adhered to Object-Oriented Programming (OOP) principles when architecting the design of the game.
- Implemented AJAX requests to random quote API and accurately calculated user WPM through custom error detection algorithm.

EDUCATION

App Academy - Intensive 1000-hour full stack development boot camp with a < 3% acceptance rate, Oct 2021 - Jan 2022

California Polytechnic State University of Pomona - *BS Biotechnology, 2017-2021*