SRUJAN RAO

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EDUCATION

The University of British Columbia

Vancouver, Canada

Bachelor of Science, Computer Science

Aug. 2019 - May 2024

- Dean's Honour List (3/4 Academic Years)
- Relevant Coursework: Data Structures and Algorithms, Software Design and Development, Machine Learning, Artificial Intelligence, Databases, Data Science, Internet Computing, Computer Hardware and OS

Experience

Software Engineer in Test Co-Op

May 2022 - Dec. 2022

LifeBooster

Vancouver, Canada

- Spearheaded the development and maintained ownership of an end-to-end testing suite with Cypress.io and integration testing suite with Jest, significantly decreasing reliance on manual testing.
- Created infrastructure with Azure to automate code testing in deployment pipelines, reducing deployment time by 2 hours and accelerating the release process.
- Increased test coverage by over 25% through the expansion of the unit testing suite using the Jest library.
- Enhanced internal APIs with OpenAPI Specifications, providing developers with easily accessible and extensible documentation via an internal endpoint.

Software Developer Co-Op

Jan. 2021 – Apr. 2021

XGen AI

Vancouver, Canada

- Created a microservice on AWS EC2 instances using AWS CDK IaC to generate and store AI prediction accuracy data, enabling easy monitoring and optimization of prediction model performance on client websites.
- Developed a REST API to retrieve data from AWS S3 and create performance reports, providing intuitive visualizations of performance metrics and integration with Slack notifications.

PROJECTS

Soundscapes | Next.js, shadcn/ui, TailwindCSS, Vercel, AWS DynamoDB

Aug. 2024 – Present

- Built a web app for creating and listening to custom ambient sound mixes, featuring a responsive UI designed with modular React components and TailwindCSS, enhancing maintainability and UI consistency.
- Optimized app performance through server-side rendering, code splitting, and lazy loading with Next.js to boost SEO, improve load times, and maintain optimal performance for over 100 concurrent monthly users.

Reinforcement Learning Solver | Python, NumPy, Jupyter, OpenAI Gymnasium, Hugo

Jun. 2024

• Applied Q-Learning and Bellman Optimality to train an agent for solving Cartpole and Mountain Car problems, successfully achieving optimal solutions, and documented the process on a Hugo-built website.

Portfolio Website | JavaScript, React.js, CSS, Framer Motion

Feb. 2024

• Developed a responsive website using React and Framer Motion, creating an engaging and visually dynamic online portfolio.

dogFish | JS, React.js, Express, MongoDB, Mongoose, Google Maps API, SendGrid

May 2023 - Aug. 2023

- Worked within a team to develop a React-based web client that provided an intuitive user interface for matchmaking, communication, and profile customization, resulting in a seamless user experience for connecting casual players and organizing local sports games.
- Optimized data transfer and system performance by implementing REST APIs with Express and MongoDB, ensuring efficient CRUD operations for effective integration with the React client.
- Integrated Google Maps API to enable location-based matchmaking and implemented SendGrid for secure email-authenticated logins, enhancing user engagement and security within the web app.

Technical Skills

Languages: C, Go, Java, R, Python, JavaScript, TypeScript, SQL, HTML/CSS

Frameworks: React.js, Svelte, Next.js, Node.js, Flask, Jest, Mocha, JUnit, Cypress, FastAPI, Spring Boot, Express Developer Tools: Git, GitHub, Linux, Unix, Docker, Amazon Web Services, Microsoft Azure, Visual Studio Code, IntelliJ IDEA, OpenAPI/Swagger, Jupyter, MySQL

Libraries: Chai, Pandas, NumPy, MongooseJS, Redux, scikit-learn, NLTK