Venkata Rahul Yalavarthi

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EXPERIENCE

Curiosity Labs

Cupertino, CA

Software Engineer

Oct 2023 - Present

Email: venkatarahuly@gmail.com

• **AskCurie**: Developed key features for AskCurie, an AI kid companion application enabling children to explore topics through dynamically generated content.

- Content Management Studio: Built Curiosity Labs Studio, a comprehensive frontend solution using Next.js and Vercel, integrating with backend APIs to manage AI-generated content, facilitate human review, and create featured slides and stories. *Technologies: Nextjs, React, Axios*
- Backend API Development: Implemented robust backend APIs for AskCurie features including age-appropriate trivia generation with real-time answer verification, leveraging ChatGPT for content creation and validation. Technologies: Python, Flask, ChatGPT4 API
- Gamification and Leaderboard: Designed and implemented a comprehensive leaderboard system for AskCurie, including user anonymization, Firebase integration for data storage, weekly reset functionality via cron jobs, along with point calculation and ranking algorithms. *Technologies: Python, Flask, ChatGPT4 API, Firebase*
- Responsive Story Sharing: Engineered a high-performance, responsive story share page for AskCurie Story feature, using Deno and Fresh framework. Implemented Open Graph Protocol for optimal social media sharing, while ensuring lightweight components for improved load times and responsiveness across devices. *Technologies: Deno, Fresh, TypeScript*

Frugal Innovation Hub

Santa Clara, CA

Full Stack Developer

Jun 2023 - Present

- Guiss Doctor: Led development of a scalable appointment management system designed for Senegal's public healthcare sector. Implemented a strategic pilot at a regional hospital, laying the groundwork for nationwide deployment. *Technologies: Flutter, Firebase, Dart*
- Action-Oriented UI/UX: Designed and implemented intuitive, single-action interfaces using Figma and Flutter, tailoring each page for non-tech-savvy users with clear, focused objectives.
- **Technical Leadership**: Led the technical dev team for Guiss Doctor, demonstrating strong problem-solving skills and overcoming complex challenges throughout the development process.
- \circ **Data Optimization**: Engineered an innovative bitmap-based storage solution for doctor schedules, reducing data requirements by 80% and improving system efficiency in low-bandwidth environments.
- **Performance Enhancement**: Redesigned database schema, resulting in a 60% improvement in read/write operations, crucial for system responsiveness in areas with limited connectivity.
- o **GDT Clinic**: Co-designed a custom process-based project management tool for Frugal Innovation Hub alongside experienced leads from various FIH projects. *Technologies: Next.js, React, Node.js, Vercel*

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Dart, Ruby, HTML/CSS, SQL

Frameworks: React, Express, Flask, Node.js, Next.js, Flutter, Tailwind, Ruby on Rails, Sinatra, Deno, Fresh

Developer Tools: PostgreSQL, MongoDB, AWS, Azure, Firebase, Figma, Git, Selenium, Puppeteer

Certifications: Azure Fundamentals, Full Stack Open

EDUCATION

Santa Clara University

Santa Clara, CA

Master of Science in Computer Science and Engineering; GPA: 3.70

Sep. 2022 - Jun. 2024

Grading Assistant: Object Oriented Programming, Theory of Algorithms, Computer Architecture

Jawaharlal Nehru Technological University

Hyderabad, India

Bachelor of Technology in Mechanical Engineering; GPA: 3.75

Aug. 2015 - July. 2019

PROJECTS

Cows and Bulls: Real-time multiplayer number guessing game using the PERN stack and WebSockets.

Web CLI Calculator: Browser-based command-line calculator with AST for expressions using React and Azure.

Fav Player Notification System: AWS-powered system notifying users when their favorite cricket player is batting. OS Scheduling Algorithm Visualizer: Interactive tool demonstrating CPU scheduling algorithms.

Advanced Web Programming Projects: Series of web applications showcasing proficiency in Sinatra and Rails.