Sulakna Karunaratna

Ashburn, VA 20148 I Lawful Permanent Resident

I +1 703 445 2900 | ■ sulaknak@vt.edu | I github.com/Sulaknak | II linkedin.com/in/sulaknak

Summery.

A skilled and motivated UI/UX Developer with 3–5 years of experience in building responsive, accessible, and high-performance web applications using React, HTML5, and CSS3. Proficient in implementing Micro Frontend architecture, integrating RESTful APIs, and collaborating with crossfunctional teams in agile environments.

Education

Virginia Tech Blacksburg, VA, USA

(M.S. Computer Science and Application)

Jan 2023 - Dec 2024

• Cumulative GPA - 3.8

General Sir John Kotelawala Defence University

Ratmalana, Sri Lanka

(BSc (Hons) Computer Engineering)

Jan 2018 - Jan 2022

Cumulative GPA - 3.5

Work Experience

Computer Science Dept., Virginia Tech

Blacksburg, VA, USA

Graduate Teaching Assistant

Jan - May (2023 and 2024)

- · Provided efficient grading support for the 'Introduction to Graphical User Interface' course, improving turnaround time for student feedback
- Supported students by answering questions and providing guidance on assignments.
- Contributed to fostering a productive learning environment through timely and accurate grading and feedback.

Arimac Lanka Colombo, Sri Lanka

Associate Software Engineer and Business Analyst

Feb 2022 - July 2023

- Developed responsive and accessible UI components using HTML5, CSS3, JavaScript, and React.
- $\bullet \ \ \text{Styled interfaces using Tailwind CSS, Material UI, and Bootstrap, maintaining consistency and mobile responsiveness.}$
- Integrated RESTful APIs and handled dynamic data using JSON for backend communication.
- Developed and maintained backend services using Java Spring Boot.
- · Utilized Git and GitHub for version control, feature branching, and code reviews in a collaborative team environment.
- · Participated in user research and analysis with tools like Google Analytics to support design decisions and optimize UX.
- Analyzed current states to identify business and technical gaps, aligning solutions with client goals.
- Collaborated with clients to gather requirements, demonstrate functionality, and explain solutions.
- Prepared detailed functional specifications, wireframes, and flowcharts to guide development.
- Collaborated with cross-functional teams including product managers, designers, and developers in agile sprints to deliver user-centric features.
- Played a dual role as a Business Analyst and Software Engineer, bridging communication between technical and non-technical stakeholders.
- Technical Skills: Feature design, system analysis, wireframing, frontend (React), backend (Java Spring Boot)
- Tools Used: Jira, Confluence, Figma
- Soft Skills: Requirement elicitation, stakeholder communication, problem-solving, Team collaboration, self-learning, time management

99x Colombo, Sri Lanka

Intern Software Engineer

July 2021 - Jan 2022

- Contributed to building and maintaining an automated assessment platform to evaluate developers in real-world project environments.
- Designed mock wireframes and created accessible, responsive user interfaces using HTML5, CSS3, JavaScript (ES6+), and React.
- Collaborated with UI/UX designers during design sprints to refine user flows, ensuring visually appealing and intuitive interfaces.
- Applied Tailwind CSS and SASS for styling and modular UI design across the platform.
- Ensured accessibility compliance by following WCAG guidelines and implementing ARIA roles, keyboard navigability, and semantic markup.
- · Focused on performance optimization including lazy loading, code splitting, and responsive image handling.
- Worked closely with backend teams to design and implement RESTful APIs, ensuring seamless integration between the frontend and backend services.
- Implemented and maintained backend services using Node.js and MongoDB.
- Used GitHub for version control and participated in team code reviews.
- Translated design concepts from Figma into fully functional, interactive web components.
- Utilized Hotjar and Google Analytics to track user interactions, gain insights into behavior, and inform data-driven design decisions to improve the overall user experience.
- · Worked closely with designers and developers in agile environments to iterate and deliver high-quality features.
- Technical Skills: Frontend (React), backend (Node.js, MongoDB, Serverless), API development
- Tools Used: Figma, GitHub
- Soft Skills: Team collaboration, problem-solving, self-learning, time management

1

Skills

Frontend Development React, JavaScript, HTML, CSS, Tailwind CSS, Bootstrap, Material UI, Figma UI/UX design

Backend Development NodeJS, Java Springboot

Databases MongoDB, MySQL

Version Control System Git

Publications

Evaluation of Interactive Demonstration in Voice-assisted Counting for Young Children

Sulakna Karunaratna, Daniel Vargas-Diaz, Jisun Kim, Jenny Wang, Koeun Choi, Sang Won Lee

Companion Publication of the 2024 Conference on Computer-Supported Cooperative Work and Social Computing, 2024

TaleMate: Collaborating with Voice Agents for Parent-Child Joint Reading Experiences

Daniel Vargas-Diaz, Sulakna Karunaratna, Jisun Kim, Sang Won Lee, Koeun Choi

Adjunct Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology, 2023

Sound Event Recognition and Classification Using Machine Learning Techniques

SBK Karunaratna, MWP Maduranga

International Research Conference of General Sir John Kotelawala Defence University (KDU IRC 2021), 2021, Ratamalana, Sri Lanka, 2021

Artificial intelligence on single board computers: An experiment on sound event classification

Sulakna Karunaratna, Pasan Maduranga

2021 5th SLAAI International Conference on Artificial Intelligence (SLAAI-ICAI), 2021

Projects

- Talemate A Storytelling Platform for Children (Frontend Development React)
- Counting App Helping Children Learn Counting (Full Stack Development React, NodeJS)
- Book Store WebApp (Full Stack Development React, Java Springboot)
- A Vendor-Based Platform for Event Management (Frontend Development React)
- An Assistant to Help with Coding Using OpenAPI and Prompt Engineering Python

Volunteer and Leadership Experience

Leo Multiple District 306

Sri Lanka

Secretary of Leo Club of Biyagama North

Jan 2022 Dec 2022

• Organized and led "Charitable Change," a multi-phase project involving collaboration with various schools to conduct leadership activities and provide essential items such as shoes, socks, and school uniforms to children in need. The initiative earned the 1st Runner-Up Award for Best Project in the Poverty and Better Life category.

IEEE Student Branch of KDU

Sri Lanka

Member of the Secretary Team

Jan 2020 - Dec 2021

- · Help manage meeting schedules and prepare agendas to ensure effective communication.
- Supported the organization of events such as technical workshops.

Musaeus College Chess Club

Colombo, Sri Lanka

President of the chess club

Jan 2016 - Dec 2016

- · Led the team to participate in national-level school chess tournaments, achieving notable performances.
- Organized and conducted regular practice sessions to improve team strategy and skills.
- Developed teamwork and a strong competitive spirit among team members.
- Led and managed the Chess Club, organizing and overseeing club activities and meetings.
- · Acted as a liaison between the club and school administration, ensuring smooth communication and event approval.
- Organized and hosted inter-house chess tournaments, fostering school-wide participation and promoting a spirit of friendly competition.

References_

· Dr. Sang Won Lee

Assistant Professor - Department of Computer Science and Applications, Virginia Tech, Blacksburg, VA, USA

■ sangwonlee@vt.edu

• Mr. Vidura Dhananjaya Bandara

Program Manager, IFS, Colombo, Sri Lanka