KASUN THENNAKOON

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SOFTWARE ENGINEER

Experienced Software Engineer with a Strong Background in Developing Enterprise-Grade, High-Performance Web Applications, Combined with in-depth knowledge of RESTful APIs. Coming from a culture of open-source development, I bring a collaborative and innovative approach to software engineering. Key skills include:
Programming | Software Development | Implementation | Testing
Leadership | Quality Assurance

TECHNICAL SKILLS

Programming Languages
JavaScript | Typescript | Python | HTML5 | CSS3 | Java | C++ | Ruby

Front-end
ReactJS | NextJS | Leaflet | Styled-components | Redux | Accessibility | WCAG | HTTP/2 | Progressive Web Apps

Back-end
ExpressJS | NestJS | Python Flask | Python Django | Firebase | AWS EC2

API Management
RESTful APIs | GraphQL | OpenAPI / Swagger | Async API | WSO2 API Manager (Core developer)

Testing & Code Quality
Jest | Cypress | React Testing Library | Git | Enzyme | Playwright | ESLint | Prettier

Application Security
OpenID Connect | JWT | CORS | OAuth2 | OWASP | Content Security Policy

CAREER EXPERIENCE

Amazon Web Services, Toronto, Canada   **March 2023-April 2023**
Front-end Engineer
- Worked as a front-end engineer of the SNS (Simple Notification Service) team.
- Added a set of integration tests using CloudWatch Synthetics.
- Fixed bugs in the SNS console's web application.

WSO2, Colombo, Sri Lanka   **November 2021-March 2023**
Technical Lead
- I spearheaded the development of a new console web application for the SaaS platform Choreo.dev, which significantly improved performance, accessibility, internationalization, and interactivity.
- I developed an OpenAPI-based auto-mocking service that extends the Mock Service Worker for front-end test automation. This service enhances the developer experience and confidence in the test suite.
- Revamped the SPA authentication architecture by implementing the OAuth PKCE extension flow, resulting in significantly enhanced security and a performance boost of over 50%.
- Designed and developed a simple state management mechanism using context and reducer hooks for Choreo SPA application, resulting in a significant improvement in user experience.

WSO2, Colombo, Sri Lanka   **July 2019-October 2021**
Associate Technical Lead

- Improved SPA performance by incorporating optimization techniques such as lazy loading, strong compression, memorization.
- I integrated the Cypress library, configured Azure Pipelines, and developed end-to-end test cases, resulting in a significant improvement in reliability and overall developer experience.
- Implemented a message-passing mechanism using RxJS.
- I deployed composite microservices using the Choreo control plane API gateway to centralize frontend API access.
- Developed a React (Typescript) SDK to communicate with product REST APIs, enabling efficient data retrieval and manipulation.

WSO2, Colombo, Sri Lanka   **February 2018-June 2019**
Senior Software Engineer
- Developed an authentication and authorization framework for ReactJS web portals using OAuth 2.0's Authorization Code Grant flow, eliminating the need for an authentication proxy.
- Authored developer-level product documentation and integrated Algolia search plugin and Google Analytics into the documentation portal, improving site reach and enhancing document search user experience.
- As an on-site consultant, I provided guidance to customers on the implementation and use of the WSO2 API Manager product, addressing their API management and identity and access management requirements.
- Utilized Lighthouse and Axe tools to enhance the web console accessibility standard and ensure compliance with WCAG 2.0. As a result, successfully attracted public sector customers to the product.
- Developed an Apache JAX-RS interceptor to provide authentication functionality for REST APIs.

WSO2, Colombo, Sri Lanka   **January 2016-January 2018**
Software Engineer
- Designed and developed workflow support for Enterprise Store in WSO2 Governance Registry.
- Developed a new web portal for the WSO2 API Manager product using ReactJS. The implementation significantly improved the user experience and maintainability of the web portal.
- Implemented configuration and setup of a ReactJS-based Single Page Application (SPA) from scratch, utilizing essential tools such as Webpack, Babel, and ESLint.

Open-Source CONTRIBUTIONS

Disk Wizard for Amahi Home Server
Google Summer of Code (Intern)
Technologies Ruby on Rails, JavaScript, Linux, Shell-script   **April 2014-August 2014**

EDUCATION
BSc (Honors) in Information Technology
University of Moratuwa, Sri Lanka

Physical Science, Mathematics
Royal College, Colombo, Sri Lanka