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 **Front-end Engineer**

March 2023-April 2023

- Worked as a front-end engineer of the SNS (Simple Notification Service) team.
- Added a set of integration tests using CloudWatch Synthetics.
- Fixed customer reported bugs in the SNS console's web application.

WSO2, Colombo, Sri Lanka

November 2021-March 2023

Technical Lead

- I initiated and drove the development of a new console web application for the SaaS platform Choreo.dev, which significantly improved performance, accessibility, internationalization, and interactivity.
- 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.
- Developed a SPA authentication architecture by implementing the OAuth PKCE extension flow, resulting in significantly enhanced security and a performance boost of about 50% which was measured Chrome Performance reports
- 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.

• Developed a design system that significantly enhanced the developer experience and ensured consistent product UI across the entire application.

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. Composed Backend For Frontend micro-services utilizing control plain APIs, significantly enhancing centralized governance of APIs used in the frontend web app.
- Developed a React (Typescript) SDK to communicate with product REST APIs, enabling efficient data retrieval and manipulation.
- Implemented a React application architecture that adhered to the logical separation of Pages, Components, Modules, Layouts, and Data.

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.
- Volunteered to integrate Algolia search into the product documentation portal and maintained it, 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.

EDUCATION

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

Physical Science, Mathematics Royal College, Colombo, Sri Lanka