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 | Storybook | 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.
- 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.

PROJECT EXPERIENCE

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