Kasun Thennakoon

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Frontend Engineer

Experienced Frontend Engineer with over 7 years of expertise in TypeScript, JavaScript, ReactJS, OpenAPI, and Web Technologies, complemented by a strong background in API Design, API management, and AWS SNS Web service. An Open-Source enthusiast, I am passionate about creating engaging digital experiences. Key skills include:

Technical Skills

Programming Languages

JavaScript | Typescript | Python | HTML5 | CSS3 | Java

Front-end

ReactJS | NextJS | Cypress | Styled-components | Redux | Microfrontends | Accessibility | WCAG | Figma | Material-UI

Back-end

NodeJS | ExpressJS | Next.JS | Python Flask | Firebase | AWS SNS | Kubernetes

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 | Lighthouse | Puppeteer

Application Security

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

EDUCATION

BSc (Honors) in Information Technology

University of Moratuwa, Sri Lanka (WES Verified Academic Qualification)

High School certificate in Mathematics & Physical Science

Royal College, Colombo, Sri Lanka

CAREER EXPERIENCE

Amazon Web Services, Toronto, Canada

March 2023 - June 2023

Front-end Engineer

- Worked as a front-end engineer of the SNS (Simple Notification Service) team.
- Added a set of End-to-End tests using AWS CloudWatch Synthetics for the Simple Notification Service console test suite.
- Resolved customer-reported bug in the React-based web application of the SNS console, enhancing user experience and ensuring seamless functionality.
- Integrated the Prettier code formatter to the SNS web console.

Technical Lead

- Initiated and led the development of a new console web application for the SaaS platform Choreo.dev.
- Developed a SPA authentication architecture by implementing the OAuth PKCE extension flow, resulting in significantly enhanced security and performance improvement.
- 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.
- simplified the state management architecture in the Choreo SPA console by using context and reducer hooks, thereby replacing some of the Redux usages.
- Developed a design system based on Material-UI that 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 the initial loading time and performance of the Choreo portal by utilizing Webpack's dynamic imports and React's lazy loading techniques to chunk the JS bundles.
- Integrated the Cypress library, configured Azure Pipelines, and developed end-to-end test cases, resulting in an improvement in reliability and overall developer experience.
- Composed Backend for Frontend micro-services utilizing control plain APIs, Reducing the re-work on API implementation.
- Developed a React (Typescript) SDK to integrate product REST APIs to the UI, enabling efficient data retrieval and manipulation.
- Improved the static files and JS bundles caching by incorporating Webpack's chunk hashes and content hashing mechanisms, which eliminates the occurrence of stale content for users.

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, it 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 substantially 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.