RABEA AHMAD

SOFTWARE ENGINEER

CONTACT

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SKILLS

Java | Python | C++ | Go

JavaScript | TypeScript

React (hooks, router) | Redux

Node | Express

HTML | CSS/SCSS | MUI | Tailwind

SQL | NoSQL

Docker | Docker Swarm | YML

Kubernetes | Prometheus | Grafana

AWS (EC2, S3, RDS, SNS, Lamba, etc)

Azure

Jest | Puppeteer | Enzyme | JUnit

Webpack | Vite

Maven | Gradle

OAuth | Cookies | JWTs

Scrum | Agile

Git |. Github. | Bitbucket

JQuery | Vanilla DOM

MongoDB | PostgreSQL | Oracle

GraphQL

CI/CD (Travis, Jenkins, Github Actions)

Next.js

SwiftUI

CERTIFICATIONS

AWS Solutions Architect - Associate

EDUCATION

Computer Science and Mathematics

University of Maryland, BC

EXPERIENCE

VaaS | OS Labs
2022 - Present

Software Engineer

- Gathered and analyzed Kubernetes cluster metrics using Prometheus (promQL) and displayed them on relevant Grafana dashboards and Kubeview, an interactive visualizer and health monitoring tool
- Leveraged Express in the Node.js runtime to build a modularized, scalable, and secure backend utilizing the separation-of-concern design pattern
- Implemented Redux framework to provide a single global state with scalability of features for more predictable and traceable state management
- Utilized React Router to create a seamless and responsive single page web app with navigation without having to wait for page refreshes as the user navigates
- Implemented React Query to manage server-state removing the need to worry about when to invalidate or fetch new data.
- Containerized testing applications using Docker before deploying on Google Kubernetes Engine in order to validate multi-cluster visualization functionality
- Migrated from Webpack to Vite leveraging HMR (hot module replacement) on native ESM modules increasing startup speeds by 1500%, and decreasing build size
- Converted frontend components written in Javascript into Typescript for easier readability and faster debugging.
- Utilized React, advanced HTML/CSS, and Material UI taking advantage of declarative and reusable custom components to revamp the user interface for an overall cleaner and more intuitive user experience
- Migrated from storing JWTS in local storage to verified, encrypted cookies to protect against cross-site scripting attacks.

Salawat
2021 - Present

Co-founder and Fullstack Engineer

- Lead system design decisions in choosing the tech stack in order to build a fully modular, scalable, and clean UI/UX application
- Architected RESTful API endpoints using Express in the Node.js runtime in order to handle concurrent HTTP requests from frontend SwiftUI developers
- Migrated backend from node.js to GoLang utilizing the echo framework and leveraging Goroutines allowing for more efficient conconcurrent programming
- Designed and normalized SQL database schema based off of application blueprint allowing for ACID compliance

Verified Voices | Open Source
2022

Software Engineer

- Utilized Next.js to assemble a highly performant and modular application benefitting from server-side rendering, automatic code splitting, and dynamic routing while maintaining top-down data flow in line with Flux architecture
- Implemented Typescript to enhance codebase readability and maintainability, prevent unintended type coercion, and minimize risk
- Leveraged GraphQL to create APIs for reliably and efficiently querying data from a SQL database
- Harnessed Tailwind CSS to efficiently create a sleek UI benefitting from increased code readability and organization, reduced developer time, and better design flexibility
- Designed a complex SQL database using reddit's system design as inspiration
- Leveraged NextAuth.js to easily implement LinkedIn OAuth 2.0 to ensure users have a verifiable professional account with the goal of eventually integrating user professional experiences to improve transparency of communication between users

Subify | Open Source
2022

Software Engineer

- Redesigned PostgreSQL database schema for more efficient reading and storing of data
- Sanitized SQL queries using input validation, placeholders, and allowlisting to protect against SQL injection
- Implemented Google OAuth leveraging passport.js and secure local authorization using encrypted credentials, cookies, sessions, and JWTs
- Implemented React with React Hooks to create a clean and convenient single-page application for users to quickly tabulate, view, add, and delete their subscriptions in mobile first design pattern

PitchIt | Open Source
2022

Software Engineer

- Programmed unit tests with Jest for middleware controller functions and for API endpoints to promote code integrity and debugging in the backend
- Utilized Express in the Node.js runtime to create modular, RESTful endpoints and efficient server-side error handling for quick debugging
- Implemented React Hooks with functional components in the frontend to manage stateful components, regulate component lifecycle events, and handle asynchronous functionality

Financial Industry Regulation Authority (FINRA)
2019 - 2020

Security Software Engineer Intern

- Developed a a security test automation framework to leverage FINRA-wide quality assurance.
- Programmed JUnit AWS hardening tests in Java using the AWS SDK for project teams to check security compliance of their AWS resources.
- Collaborated with teams to shift security left in the SDLC by plugging in security tests into their test automation suite.