Riad Ahmed Zakir

Senior Software Engineer

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Profile

Experienced and results-driven Senior Software Engineer with 5 years of expertise in React, Vue, Angular, ASP.NET, Spring boot - Java, and Flutter. Skilled in front-end and back-end development, I excel at translating complex business requirements into efficient and elegant technical solutions. With a proven track record of delivering high-quality software solutions for various industries, I specialize in creating responsive user interfaces and building RESTful APIs. Proficient in cross-platform mobile app development using Flutter, I ensure native-like experiences on iOS and Android. A collaborative team player, I thrive in agile environments and possess excellent communication skills. Passionate about staying up-to-date with industry trends, I am dedicated to continuous improvement. Seeking new challenges to contribute to the success of a dynamic organization.

Experiences

Senior Software Engineer
May 2023 - Present

Secure Link Service ltd. (Selise)

Amberg RMS - Amberg Technologies

Amberg Technologies is a globally recognized leader in providing railway and tunnel survey solutions. One of its many offerings is the Railtrack survey and analysis. Developed a back-office application where the data collected by Amberg Rail Field app are processed, analysized and visualized. The back-office application is bundled as a stand-alone desktop application for windows that uses windows msi tool to bundle microservies, ui-application and all it's dependencies.

Tech Stack

- React – Frontend library
- CI/CD – GitHub Actions
- Asp.net Core - Backend
- SonarQube – Code Quality Tool
- xUnit – Unit/Integration Test
- Version Control – GitHub

Software Engineer
March 2018 - April 2023

Secure Link Service ltd. (Selise)

Amberg Rail Field - Amberg Technologies

Amberg Technologies is a globally recognized leader in providing railway and tunnel survey solutions. One of its many offerings is the Railtrack survey and analysis. Developed an IOT solution that collects data while inspecting rail tracks using trolley, amu and gnss sensors and translate the defects of the track based on the data, and rendering the data on the tablet for visualization. The tablet app is used for recording various events, identifying defects on track, which is later used to take corrective and preventive actions based on the inspection.

Tech Stack

- React – Frontend library
- Project Management – Jira, Confluence, Following agile development methodology.
- Cypress – e2e testing
- Jest – Unit Testing
- Version Control – Bitbucket

Mister Loo – Web/Mobile

Mister Loo designs, constructs and manages public toilet facilities through its tech- enabled service platform at high footfall locations in Asia. Mister Loo has developed a tech-enabled service platform offering an enjoyable customer experience meeting the highest cleanliness standards while ensuring diversity and equality along the entire value chain, regardless of race, gender, or nationality. The ERP application ranges from collecting usage data to visualize day to day revenue to complex customer relation manager that are but not limited to employee management, task manager, calendar etc.

Tech Stack

- Angular – Frontend library
- GitHub Actions – CI/CD
- Asp.net Core - Backend
- SonarQube – Code Quality Tool
- Flutter – Mobile App
- xUnit/Jest – Unit/Integration Test

Private Wealth Solution

Developed a digital partner portal for a Swiss-based Private Wealth Solutions company, creating a paperless system for partner banks. Solutions included digital forms, e-signature implementations, document management, communications etc. It also extends to complex Customer relationship management (CRM) digital solution for both business to business (b2b) and business to consumer (b2c).

Tech Stack

- Angular/ AngularJS – Frontend
- MongoDB - Database
- Asp.net Core - Backend
- Gulp/Grunt – Task Automation
- PWA – Mobile App
- Jenkins - CI/CD pipeline

Private Wealth Solution – Internal Communication platform

I developed a stateful Slack-like application using React-Redux, which includes various features such as user and channel creation, private messaging, adding and removing favorites, and the ability to add media using Firebase Storage. The application utilizes Firebase Real-Time Database for seamless real-time communication. Additionally, I ensured the security of the application by implementing Firebase Rules. The application is hosted on Firebase Hosting, providing a reliable and scalable platform. With an added touch of creativity, the application supports the use of emojis, enhancing the user experience.

Tech Stack

- React – Frontend
- Semantic-UI – Ui component
- Firebase – Realtime Database

Full Stack Developer
Freelance project

myKachaBazar.com

myKachaBazar - A eCommerce solution

During my involvement with the project, I gathered and analyzed business needs and desires by collaborating with clients, partners, sales, and operations, resulting in user-centric solutions. I successfully oversaw projects from conception to design, prototype development (UI/UX ready), technical implementation, and ongoing maintenance, while ensuring timely completion of deliverables. I demonstrated proficiency in developing and deploying RESTful APIs, microservices, and an eCommerce web application, providing seamless communication and a smooth online shopping experience. Additionally, I managed project maintenance, implemented test automation strategies from SQA and developer perspectives, and ensured a streamlined deployment process with robust source control for production-ready applications. Overall, my comprehensive skills and understanding of the software development lifecycle contribute to successful project outcomes and align with business objectives.

Tech Stack

- AngularJS – Frontend
- GitHub – Version Control
- NodeJS - Backend
- Trello – Project Management
- Gulp – Bundling
- IIS/PM2 - Hosted on VPS

Projects

Authentication & Authorization

Designing a authentication and authorization microservice using Microsoft IdentityServer4 that implements dynamic multi-tenant registration. Any client can be used to register to use the micro-service and use future planned generic micro-services with the token. The project also includes a generic data service to query.

- ➢ Implemented Identityserver4 to get Token using credentials or refresh tokens.
- ➢ Multi tenant/client from database as configurable
- ➢ Working with custom claims from tenant User
- ➢ Custom Role based authorization
- ➢ Roles are configurable from database
- ➢ Each action uses CustomAuthorizeAttribute to check request permission from database as configurable
- ➢ Implement password hashing
- ➢ Created user creation endpoint with FluentValidation
- ➢ Added self-signed certificate for production environment.
- ➢ Created client/tenant to create and login with user. - https://github.com/riadahmedzakir/jwt-token-base-authenticaion

Tech Stack
- ➢ C# - .Net Framework.
- ➢ Following DDD pattern for Data service & Repository pattern for identity service. Moving entity configuration and validation to different repository following SIMPLE principle.
- ➢ Angular For Frontend integration

A full fledged microservice architecture - Spring Boot

I created a robust Eureka Discovery Service that automates the registration of multiple instances of an available service, making it easily accessible to other microservices. As part of this implementation, I developed the first microservice, the Identity Service, with Eureka Discovery enabled. This allows the Identity Service to delegate the following responsibility.

- ➢ Create new users (Registration)
- ➢ User Login
- ➢ User Details
- ➢ User Update
- ➢ User Delete

I developed a second microservice, the UAM (User Access Management) Service, with Eureka Discovery enabled. This implementation allows the UAM Service to delegate the responsibilities of

- ➢ Password reset
- ➢ Email verification

In my microservices architecture, I incorporated Spring Cloud API Gateway as a load balancer to evenly distribute incoming requests across multiple microservice instances. To secure the endpoints, I implemented JWT token authorization using gateway filters for authentication and authorization. For centralized configuration management, I established a Spring Cloud Config Server, allowing easy updates and maintenance of configurations. To enable runtime configuration changes across all microservices, I utilized Spring Cloud Bus, along with RabbitMQ deployed on Docker as the message bus. To enhance security, I implemented asymmetric encryption for the token secret. For client-side load balancing, I utilized Spring Rest Template, later transitioning to Feign Client for streamlined communication between microservices. These implementations ensured scalability, security, and performance, enabling efficient request handling, centralized configuration management, and seamless communication across the microservices architecture.

Tech Stack
- ➢ Java
- ➢ Spring boot with multiple Maven repositories.
- ➢ RabbitMQ
- ➢ Docker, Docker-compose

Genshin Impact Tools

A hobby project I'm currently working on built with the latest angular version. The idea is to a create tool to make my life easier with the game.The full description of the project and its future plan is listed on the website.

Tech Stack
- ➢ Angular framework
- ➢ GitHub pages for hosting
- ➢ Data scaped from multiple websites to collect relevant data
- ➢ Travis-CI for CI/CD pipeline
- ➢ Unit test & e2e Testing using cypress and karma

Minimalistic Slack - React

A slack clone that can create user,channel, send private message, add/remove favorites, add media using firebase storage, use emoji. A stateful application created with react-redux. Using firebase real-time database, firebase hosting, secured with firebase rules.

Tech Stack
- ➢ React – Frontend
- ➢ Semantic-UI – Ui component
- ➢ Firebase – Realtime Database
- ➢ Heroku – Hosting

eCart

A eCommerce solution using react as front end and spring boot as backend. Implementing cart service using redis for cached cart and stripe for payment gateway.

Tech Stack
- ➢ React – Frontend
- ➢ Spring Boot - Backend
- ➢ Redis – Caching
- ➢ Docker, Docker Compose
- ➢ GitHub – Version Control
- ➢ Trello – Project Management

Docker-Kubernetes

Using docker on development environment to host a dockerized website that contains both frontend client and backend services enabling each container to communicate with each other. Then using kubernetes to manage pods with docker containers.

Tech Stack
- ➢ Simple HTML/CSS for a simple frontend client
- ➢ Node for an express backend service.
- ➢ Redis as key/value storage to replicate database communication.
- ➢ Docker, Docker Compose, Docker Desktop for Windows
- ➢ Kubernetes, Docker Desktop Kubernetes service.

Education

Bsc in Computer Science and Enginnering (CSE)	Higher Secondary/Secondary School Certificate
American International University - Bangladesh (AIUB)	Dhaka Residential Model College (DRMC)
CGPA: 3.36 (2014-2017)	CGPA: 4.20 & 5.00 (2011-2013 & 2009-2011)