# Md. Ahad Ali Software Engineer

#### **PROFILE**

Experienced Software Engineer with over 2.5 years of experience, specializing in Java, Kotlin, Spring, MySQL, Typescript and Next.js. Developed middleware for TELECOM API integration and web applications for provisioning applications, optimized legacy app TPS and improved efficiency through performance monitoring and UI tools.

## PROFESSIONAL EXPERIENCE

# **Software Engineer,** hSenid Mobile Solutions *∂*

Apr 2024 – present | Dhaka, Bangladesh

- Developed a middleware application to integrate TELECOM APIs with applications, enabling seamless data exchange and communication.
- Upgraded legacy application with latest technologies to reduce vulnerability and improve maintainability.
- Configured monitoring tool to track and analyze application performance, enhancing system reliability.
- Enhanced the TPS of legacy applications by 45% through performance optimizations, resulting in faster request processing.
- Built web portal to provision applications—controlling services, updating configurations, and monitoring request flow and success rates—reducing manual errors and improving operational efficiency by 60%.
- Actively participated in Scrum meetings, providing valuable input and feedback to enhance team collaboration, efficiency and productivity.

## **Associate Software Engineer,** hSenid Mobile Solutions ∂

Jan 2023 – Mar 2024 | Dhaka, Bangladesh

- Designed and developed a USSD application for M1 (Singapore), enabling users to seamlessly activate offers and transfer balances, which improved user engagement by 20%.
- Developed a mobile banking solution for RawBank (Congo), supporting banking operations on all mobile phones, resulting in a 100% increase in customer engagement via USSD.
- Upgraded application dependencies, reducing vulnerabilities and enhancing platform security.
- Implemented a robust microservices architecture backend systems using Docker leading to a 30% increase in system reliability and supporting over 500,000 concurrent users.

## **SKILLS**

## **Backend Technologies**

Java, Kotlin, Spring Core, Spring Boot, Spring MVC, Spring JDBC, JAX-WS, Netty, Hibernate.

#### **Database**

MySQL, MariaDB, MongoDB

## **Frontend Technologies**

HTML, TypeScript, React, Next.js, Tailwind CSS, Prisma

#### **Tools**

Maven, Git, Docker, Grafana

# **Operating Systems**

Ubuntu, Red Hat Enterprise Linux, Windows

# **PROJECTS**

## **Internet Payment Gateway,** (Hutch - Sri Lanka)

- Implemented functionality to add bonus amounts on transactions, configurable with both fixed and percentage based slabs.
- Developed an intuitive user interface to allow seamless configuration of bonus thresholds and slab rates. Enhanced transaction validation logic to ensure accurate bonus calculations based on dynamic rules.
- Optimized database queries and introduced indexing strategies, resulting in an 83% reduction in CSV file downloading time.

**Tools:** Java 5, Spring MVC, JSP, Hibernate, MySQL, Ant.

# Ajuba USSD Subscriber Menu, (Rawbank - Democratic Republic of the Congo) &

- Developed a Change Pin Action allowing 500,000+ users to securely update their USSD menu PINs, integrating 3DES encryption to enhance data security compliance.
- Developed the Cash Out Action, streamlining the transfer of funds from a subscriber's wallet to an agent, leading to transaction times over 30% faster.
- Implemented Account Mini Statement feature with pagination support, improving transaction history navigation for 500,000 users with English and French language.
- Designed and deployed a transaction logging mechanism that monitors activities in real-time, providing enhanced oversight for system security and auditing purposes.

Tools: Java 17, Spring Core, Spring MVC, Spring JDBC, MariaDB, Hibernate, Maven.

# Sigtran Gateway, (Tata Communication) ∂

- Developed an API to retrieve Send Authentication Info (SAI) via GSM MAP Protocol call data using HTTP requests and responses.
- Built an UI to configure routing, Calling Party GT and Called Party GT mapping, reducing manual intervention and configuration time by 25%.
- Upgraded the technology stack, enhancing security and application performance by 15%.
- Configured Grafana reports for monitoring application's performance, improving application monitoring capabilities by 35%.

Tools: Java 17, Spring Core, Spring JDBC, Netty, TypeScript 5, Next.js, Python 3, Maven, Grafana, Keycloak.

## **Ajuba USSD Subscriber Menu,** (M1 - Singapore) ∂

- Integrated the Ajuba app with the SDP platform, facilitating USSD services for over 2 million subscribers, and established an SMSC connection, enabling SMS functionality.
- Developed the M Send Singapore feature for seamless money transfers between SIM users and improving transaction efficiency by 100%.
- Developed Validity Extension to extend the validity of prepaid sim.
- Upgraded Spring from 4.1.3.RELEASE to 5.3.30 and Hibernate 4.2.8.final to 5.5.6, ensuring improvement in stability and performance.
- Implemented a Password Policy using Keycloak to enhance security compliance, decreasing password vulnerabilities and integrated Grafana for real-time application monitoring, providing 5 actionable insights into performance bottlenecks.

Tools: Java 17, Spring Core, Spring MVC, Spring JDBC, JSX-WS, MariaDB, Maven, Grafana, Keycloak.

# **Location Based Service,** (Dialog - Sri Lanka) ∂

- Developed and integrated a location-based service feature for Dialog using 4G technology, improving live location tracking accuracy by 30% on fallback situation.
- Upgraded legacy application infrastructure by migrating from JDK 7 to JDK 21 and replacing Servlet APIs with Spring Boot controllers, significantly modernizing the codebase and improving maintainability.
- Replaced CAS authentication with Keycloak in the web module, enhancing security and enabling support for modern identity protocols such as OpenID Connect and OAuth 2.0.
- Upgraded Hibernate from version 3.2.5 to 6, enabling better performance, modern query capabilities, and long-term support.
- Optimized application performance by reducing log verbosity, leading to a 20% increase in Transactions Per Second (TPS).
- Implemented detailed event logging to monitor the request life cycle, improving issue traceability and reducing troubleshooting time by 75%.

Tools: Java 21, Spring Boot, Hibernate, OAuth Keycloak, MySQL, Maven.

## **EDUCATION**

# **Bachelor of Science in Computer Science and Engineering,** Daffodil International University ℰ

- Participated on coding competitions and hackathons.
- Worked with researchers and published one paper in IEEE.