Kawsar Ahemmed Bappy

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📍 Savar, Dhaka, Bangladesh

Software Engineer with 1.5+ years of experience, passionate about system design and scalable backend development. Skilled in building impactful solutions with a strong focus on architecture and a deep curiosity for how systems work under the hood.

Skills

Languages — Go, Dart, C++

Frameworks — Gin, Echo, Flutter

Database — MySQL, PostgreSQL, Redis, GORM

Others — Git, Docker, RabbitMQ, Kafka, AWS(EC2, S3)

Professional Experience

Vivasoft Ltd ⌗

Software Engineer L-1   Mar 2024 – Present
- Developing backend systems in Golang, specializing in API design and scalable microservices.
- Built an AI-driven web crawler, reducing operational costs by 40%.
- Refactored legacy code, cutting codebase size by 30–40% using design patterns and clean code principles.
- Improved database performance by 20–30% through query optimization, Redis caching, and GORM enhancements.
- Deployed microservice modules on development servers using Docker, streamlining testing workflows.
- Migrated a flutter project to a newer version, integrated Dynamic Role based access control, written unit tests, deployed in firebase console for testing.

Associate Software Engineer   Feb 2023 – Aug 2023
- Contributed to Vivasoft's open-source project, "Golang Bootcamp in Bangla," ⌗ aimed at making Golang more accessible.
- Wrote beginner-friendly documentation and hands-on examples for complex Golang concepts.
- Participated in Agile development processes, including daily stand-ups, sprint planning, and full software development lifecycle from requirements gathering to deployment.
- Gained hands-on DevOps experience, handling version control, CI/CD, and database management.

Projects & Research

WeSelect Career Crawler
An AI-powered web crawler that extracts and processes career data from multiple websites, enabling real-time job market insights at reduced operational costs.
- **Tech Stack:** Golang, Python, FastAPI, OpenAI GPT, Gin, PostgreSQL, Redis, Selenium.
- **Contribution**:
  - Contributed to developing a web crawler that achieved a 40% cost reduction compared to market alternatives.
  - Implemented a hybrid GPT model approach combining GPT-3.5 & GPT-4o to optimize the cost-performance ratio.
  - Developed backend APIs and supported microservice architecture for concurrent crawling operations

Pi-Inventory
A scalable inventory management system that streamlines bulk product operations and empowers users to generate diverse, detailed reports for business insights.
- **Tech Stack:** Golang, Gin, PostgreSQL, Redis, Docker
- **Contribution**:

- Refactored and modularized the codebase, reducing its size by 30–40% to improve maintainability and readability.
- Optimized database performance with batch processing and implemented transaction management for data consistency.
- Resolved critical bugs and optimized API payloads, improving frontend load times for pages and reports.

Financfy Customer Portal
A customer-facing portal that allows users to manage financial data, view transactions, and interact with personalized dashboards.
- **Tech Stack:** Golang, Gin, GORM, Docker
- **Contribution**:
  - Designed database schemas and developed core backend features for user interactions.
  - Assisted in Docker-based deployment processes for development environments.

Asset Management System
A full-fledged asset management platform built for SaaS deployment, enabling businesses to manage assets, users, and roles with detailed reporting and access control features.
- **Tech Stack:** Golang, Gin, MySQL, Docker
- **Contribution:**
  - Contributed to database schema design, ensuring efficient and scalable data storage.
  - Developed RESTful APIs with role-based access control (RBAC) and efficient MySQL indexing.
  - Collaborated with frontend teams to ensure seamless API-UI integration.
  - Deployed services to dev and staging servers for frontend integration and QA testing.

Financfy Mobile App
A Flutter-based mobile app designed to help individuals and small businesses manage cashbooks, roles, and transactions with fine-grained permission control and real-time financial tracking.
- **Tech Stack:** Flutter (3.24.5), Dart, Firebase, BLoC, REST APIs, GetIt, Firebase App Distribution, Go(backend)
- **Contributions:**
  - Migrated app from Flutter 3.10.0 to 3.24.5, resolving breaking changes and modernizing core architecture.
  - Refactored and expanded unit tests to ensure stability, covering critical logic like permissions and time-based filters.
  - Fixed critical post-migration bugs, including navigation crashes, state handling issues, and UI rendering problems.
  - Implemented dev and staging release pipelines using Firebase App Distribution with flavor-based builds.
  - Architected a type-safe, modular permission system using Cubits, centralized state, and enums.
  - Used BLoC for efficient, testable state management across features, reducing unnecessary rebuilds.

Problem Solving & Activities

Problem Solving
Solved 400+ problems on various online judges.
- Leetcode ☑
- Stopstalk ☑

Courses & Certifications

Advanced Learning Algorithms — (Coursera) ☑

SQL (Intermediate) — (Hackerrank Certificate) ☑

Docker Essentials — (KodeKloud Certificate) ☑

Education

B.Sc. in Software Engineering,
Shahjalal University of Science and Technology

Feb 2019 – Feb 2024
Sylhet, Bangladesh