Boru Tamena

Computer Engineer . Software Developer

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Summary

Computer Engineer with hands-on experience building, deploying, and maintaining scalable software solutions across **frontend, backend, and full-stack roles**. Strong background in designing RESTful APIs, developing responsive web applications, and working with modern frameworks and cloud-ready architectures. Experienced in collaborating with cross-functional teams, translating business requirements into technical solutions, and delivering high-quality, production-ready systems. Passionate about clean code, system reliability, and continuous learning, with a proven ability to adapt quickly across different domains and technologies.

Work Experiences

2FCapital — Addis Ababa

Backend Developer [June 2024 -Apr2025]

- Developed and maintained a **robust, high-performance backend system** for a delivery application, enabling seamless integration between **ride-sharing and delivery services** to enhance overall user experience.
- Implemented **shortest-path routing algorithms** to calculate optimal delivery routes, reducing delivery time and improving route accuracy for delivery personnel.
- Collaborated with **cross-functional teams** to streamline connectivity among service providers, significantly improving operational efficiency and system reliability.
- Designed and engineered **scalable backend services in Golang**, achieving reduced API latency and improved response times under high traffic conditions.
- Adopted **monitoring and telemetry tools** such as **Prometheus and Grafana** to track system health, performance metrics, and service availability in real time.
- Integrated **centralized logging and search** using **OpenSearch**, enabling faster issue diagnosis, improved observability, and proactive incident resolution.
- Conducted thorough **code reviews and refactoring** to optimize application performance while ensuring high reliability, maintainability, and clean architecture.
- Leveraged backend development best practices to contribute to a **high-quality, maintainable codebase** and foster a culture of continuous improvement.

LakiPay **Addis Ababa**

Fullstack Developer **2025 - Present**

- Designed and implemented **secure, scalable backend systems** for high-demand financial applications, ensuring data integrity, compliance, and operational resilience.
- Built and developed a **ledger management system with double-entry accounting**, enabling accurate financial tracking and reporting across multiple accounts.
- Integrated with **various payment processors**, facilitating seamless, secure, and reliable financial transactions.
- Developed and maintained **support ticket management systems**, improving issue tracking, resolution efficiency, and customer satisfaction.
- Collaborated closely with **cross-functional teams** throughout the software development lifecycle to enhance backend architecture, system integrations, and operational efficiency.
- Leveraged **modern technologies, frameworks, and architectural patterns** to drive innovation, scalability, and efficiency in backend services.
- Committed to **continuous learning and improvement**, actively adopting new backend methodologies, tools, and best practices.

Projects

Chat Application

Go-Chat is a **scalable, real-time messaging platform** supporting both private and group chat functionalities. The system was designed for **low-latency communication**, reliable message delivery, and maintainable backend architecture. It emphasizes user interactions such as friend requests, acceptance, and blocking, while ensuring data integrity and performance.

- Designed and implemented **private and group chat functionalities**.
- Built **user interaction features**, including friend requests, acceptance, and blocking.
- Integrated **WebSockets** for efficient, real-time, low-latency messaging.
- Implemented **MongoDB** for storing chat history and maintaining message persistence.
- Utilized **SQLC** for managing SQL queries in Go, ensuring optimized database operations and maintainable code.
- Applied **Behavior-Driven Development (BDD)** to write automated tests, ensuring feature accuracy and robustness.
- Implemented **Role-Based Access Control (RBAC)** to manage user permissions and secure chat operations.

Job Board Apİ

Developed a **scalable job board platform** enabling job posting, application management, and employee hiring. The system emphasizes **security, maintainability, and scalability** through modern backend design principles and a microservices architecture.

- Implemented **core functionalities**: job posting (CRUD), job applications, and employee hiring workflows.
- Integrated **JWT-based authentication** to ensure secure user access.
- Applied **Casbin for Role-Based Access Control (RBAC)** to manage permissions across different user roles.
- Used **GORM** for efficient database management and ORM-based operations.
- Documented APIs with **Swagger**, providing clear and comprehensive API specifications.
- Designed backend using a **microservices architecture**, improving scalability, modularity, and maintainability.
- Applied **concurrent programming patterns** in Go to optimize performance for high-traffic operations.
- Delivered a **secure and reliable job board platform** with clearly defined user roles and permissions.
- Enabled **efficient management of job postings and applications**, improving operational workflow for employers and candidates.
- Built a **scalable, maintainable backend** that can grow with user demand and integrate additional services seamlessly.
- Provided **well-documented APIs**, simplifying integration with frontend applications and third-party services.

Url Shortening

Built a **high-performance, scalable URL shortener service** using Go, MongoDB, Redis, and Prometheus. The platform provides **fast URL shortening, analytics tracking, and horizontal scalability**, following industry best practices for reliability, security, and maintainability.

- Implemented **fast URL shortening** using Base62 encoding for 7-character short codes.
- Developed support for **custom short codes** with validation and collision handling.
- Integrated **analytics tracking** for clicks, capturing referrer, user agent, and IP address.
- Implemented **Redis caching** with 24-hour TTL for sub-millisecond redirect performance.
- Designed backend for **horizontal scalability**, leveraging MongoDB sharding to handle billions of URLs.
- Optimized **MongoDB connection pooling** (min: 10, max: 100) for high concurrency.
- Configured **Nginx load balancing** across multiple backend instances.
- Implemented **rate limiting** at Nginx level to protect backend services.

- Built **real-time monitoring dashboards** using Prometheus and Grafana.
- Ensured **system reliability** with health checks and graceful shutdown procedures.
- Achieved **sub-millisecond URL redirects** and highly responsive performance under load.
- Delivered **scalable, maintainable infrastructure** capable of handling massive URL datasets.
- Enabled **real-time operational insights** through monitoring and analytics dashboards.
- Ensured **robust, reliable service** with rate limiting, health checks, and clean resource management.
- Provided **customizable and secure URL shortening** for end users.

Gabaa Bot

Developed a **Telegram-based eCommerce platform** enabling users to browse property listings, manage carts, and complete purchases seamlessly. The platform integrates with **payment gateways** to ensure secure and reliable transactions directly within the Telegram interface.

- Implemented **property listing features** with detailed descriptions, images, and search/filter functionalities.
- Developed **cart management** for users to add, update, and remove items before checkout.
- Designed and integrated a **secure checkout process**, handling user inputs and order validation.
- Integrated with **multiple payment gateways** to facilitate secure and seamless financial transactions.
- Ensured **real-time updates and notifications** to users regarding orders, payments, and property availability.
- Built the backend for **scalability and maintainability**, ensuring smooth interaction with Telegram APIs.
- Enabled **users to browse and purchase properties directly through Telegram**, improving accessibility and convenience.
- Provided a **secure and reliable payment flow**, reducing failed transactions and improving trust.
- Delivered a **smooth shopping experience** with real-time cart updates and order confirmations.
- Built a **scalable, maintainable system** capable of integrating additional features and payment providers in the future.

Education

Bachelor of Science in Computer Science and Engineering
Adama Science and Technology University (ASTU) – Graduated **with honors**, CGPA: **3.78**, December 2023

Skills & Technologies

Go · MongoDB · Redis · Prometheus · Grafana · Nginx · Base62 Encoding · Microservices · Scalability · Performance Optimization ·Telegram Bot API · Payment Gateway Integration ·Next Js . Typescripts.