Prakash Dass R

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Professional Summary

Final-year B.Tech student with strong foundation in **C++ multithreading**, **Go backend development**, and **system design**. Experienced in building scalable backend services, REST APIs, and concurrent systems. Passionate about writing clean, efficient code and solving complex problems. Seeking a Software Development Engineer role to leverage skills in backend infrastructure and cloud-native applications.

Technical Skills

- **Languages:** C++, Go, Python, JavaScript/TypeScript
- **Backend:** REST APIs, gRPC, Docker, PostgreSQL, Redis, Microservices
- **Concepts:** Multithreading, Concurrency, System Design, Data Structures & Algorithms
- **Tools:** Git, Linux, CI/CD basics, Postman

Projects

Multithreaded HTTP Server

C++ — Operating Systems & Concurrency

- Designed and implemented a high-performance multithreaded HTTP server handling concurrent client requests using POSIX threads and thread pools.
- Implemented efficient request parsing, connection management, and response handling, supporting HTTP/1.1.
- Benchmarked server performance, demonstrating low latency and high throughput under concurrent loads.

Cloud-native REST API Service

Go, PostgreSQL, Docker

- Built a scalable RESTful API with Go and PostgreSQL, supporting user authentication, CRUD operations, and pagination.
- Implemented middleware for JWT-based authentication, logging, and error handling.
- Containerized the application using Docker and deployed on cloud platforms for continuous integration and delivery.

Concurrent Key-Value Store

Go

- Developed an in-memory key-value store supporting concurrent read/write operations using Go's goroutines and mutexes.
- Added TTL (time-to-live) functionality and persistence using append-only file storage for durability.
- Built a CLI client to interact with the store, demonstrating thread-safe access and durability guarantees.

Experience

Software Development Intern

Infosys Springboard *Oct 2024 – Dec 2024*

- Developed a production-grade prediction model with Python and Scikit-learn, achieving 85% accuracy and integrating CI/CD pipelines.
- Designed REST APIs with Django, improving response times by 40% through query optimization and caching.
- Collaborated in Agile teams with Git version control, contributing to sprint planning and code reviews.

Education

B.Tech in Artificial Intelligence and Machine Learning

Sri Shakthi Institute of Engineering and Technology 2022 – 2026

- CGPA: 7.93 / 10
- Relevant coursework: Data Structures & Algorithms, Operating Systems, Database Management Systems, Computer Networks

Achievements

- Solved 350+ problems on LeetCode focusing on data structures and algorithms.
- Finalist at National Level AI Hackathon (2025).
- Led a team to develop a digital management system improving operational efficiency by 30%.
- Certified in Full Stack Development (Unstop) and Generative AI Fundamentals (Infosys Springboard).