Debarshee Chakraborty

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ABOUT ME

Backend Developer with 2 years of experience designing and developing APIs, distributed systems, and microservices using Java, Go, Python, and JavaScript. Skilled in object-oriented design, algorithm design, data structures, and operating systems fundamentals. Experienced in cloud deployment, database management, and implementing scalable architectures in fast-paced agile environments.

EXPERIENCE

Backend Project Development Lead, Resourcio - Apertre Website   Jun 2023 – May 2025

- Engineered and deployed a high-traffic web application serving 5,000+ active users during open source season.
- Optimized leaderboard generation algorithm, reducing time from 4 min to 30 sec, achieving 87% performance improvement.
- Tech Stack: TypeScript, NextJs, Tailwind, NestJs, Prisma, Postgres, Clerk, GitHub Actions, Railways

Olake - Datazip (Open Source)   GitHub Repository

- Enhanced MongoDB splitVector operation resilience by implementing retry logic with exponential backoff, preventing immediate failures during temporary database disconnections and improving data chunking reliability.
- Tech Stack: Java, Go, Shell, SQL, Amazon S3 and Iceberg

SKILLS

Languages: Java, Go-Lang, Python, JavaScript, TypeScript, C, C++, Bash, SQL
Frameworks: Spring Boot, Gin, Express, NestJs, Flask, FastAPI, Django, DotNet, Laravel
Database and DevOps: AWS, GCP, Docker, Kafka, Kubernetes, Postgres, MongoDB, Redis
Others: Distributed Systems, Multi-tier Architecture, Agile Development, Problem Solving, Optimization

AWARDS and ACHIEVEMENTS

AI App with Firebase Genkit Track Winner - Hack4Bengal S3   Certificate

- This application using Firebase for backend and includes an AI bot based on Qwen2:0.5b model, powered by Ollama and Genkit.
- Tech Stack: NextJs, React, Firebase, Firebase-Genkit, Ollama, Vercel and Qwen2

PROJECTS

Redis from scratch using Go   GitHub Repository

- Built a Redis clone in Go supporting core commands, memory management, protocol compliance, and architecture design.
- Tech Stack: Go, Linux, Memory

Video Streaming Application using Spring Microservice   GitHub Repository

- Designed microservices-based e-commerce platform with real-time messaging and scalable distributed architecture.
- Tech Stack: Java, Spring, Spring Boot, DGS, Postgres, Mongo and Docker

Simple Local RAG   GitHub Repository

- Building a RAG (Retrieval Augmented Generation) pipeline from scratch and having it run on a local GPU.
- Tech Stack: Python, PyTorch, Gemma-7b, Transformers

EDUCATION

Academy of Technology, B.Tech with Hons. in Engineering - GPA: 7.53/10.0   Oct 2022 – Jun 2026

- **Relevant Coursework:** Data Structures and Algorithms, Object Oriented Programming and Database Management System

Methodist School, Dankuni, Computer Science CISCE - ISC: 89%, ICSE: 91%   Apr 2012 – Mar 2022

- **Relevant Coursework:** Computer Science, Physics, Mathematics, Chemistry, Biology

EXTRA CURRICULAR ACTIVITIES

Content Writer and Social Media Manager, Google Developer Group Cloud Kolkata   Mar 2025 – Present

- Managed social media content strategy and technical writing, increasing community engagement by 40% across all social medias.

Lead Organizer, Google Developer Group on Campus Academy of Technology   Sep 2024 – Present

- Led organizational initiatives for 800+ student members, coordinating workshops to drive innovation in emerging technologies.