

Debarshee Chakraborty

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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 runtime from 4 minutes to 30 seconds through query optimization and asynchronous data handling (an 87% performance gain).
- Implemented CI/CD pipelines, automated testing, and containerized deployments using GitHub Actions and Docker, accelerating release cycles by 60%, with AI-driven code reviews, infrastructure monitoring, and observability integration.
- Tech Stack: TypeScript, NextJs, Tailwind, NestJs, Prisma, PostgreSQL, Clerk, GitHub Actions, Railways

Olake - Datazip (Open Source) GitHub Repository

- Contributed to distributed database replication system for data lake ingestion using Apache Iceberg and Amazon S3.
- Improved MongoDB splitVector operation resilience via retry logic and exponential backoff, increasing fault tolerance and reducing replication failures by 99%.
- Tech Stack: Go, Java, Shell, SQL, Amazon S3 and Iceberg

SKILLS

Languages: Java, Go-Lang, Python, JavaScript, TypeScript, Bash, SQL

Frameworks: Spring Boot, Gin, Express, NestJs, Flask, FastAPI, Django, DotNet

DevOps & Cloud: AWS, Google Cloud, Docker, Kubernetes, Git, CI/CD, Grafana, Prometheus, Linux, Kafka

Database Systems: PostgreSQL, MongoDB, Redis, MySQL, SQL Server

DevOps & Cloud: Microservices, System Design, RESTful APIs, Distributed Systems, Caching, Message Queues

PROJECTS

Redis from scratch using Go GitHub Repository

- Developed an in-memory data store implementing core Redis commands, protocol handling, and memory management in Go.
- Tech Stack: Go, Linux, Memory

Httpbin - API using Django Rest Framework GitHub Repository

- Built a RESTful API suite replicating HTTP protocol behaviors, supporting various request/response scenarios.
- Tech Stack: Python, UV, Django, Django Rest Framework

Microservice Ecommerce Application using Spring Framework GitHub Repository

- Engineered a microservices-based e-commerce platform with real-time messaging and observability stack.
- Tech Stack: Java, Spring, Spring Boot, DGS, Postgres, Mongo, Docker, Kubernetes, Grafana, Open Telemetry and AWS

Nvidia GPU - Local RAG using PyTorch GitHub Repository

- Built a RAG pipeline using PyTorch, integrating vector databases, custom embeddings, and Gemma-7B models.
- Tech Stack: Python, PyTorch, Cuda, Gemma-7b, Transformers, Weights and Biases

EDUCATION

Academy of Technology, B.Tech with Hons. in Engineering Oct 2022 – Jun 2026

Methodist School, Dankuni, Computer Science CISCE Apr 2012 – Mar 2022

ACHIEVEMENTS and EXTRA CURRICULAR ACTIVITIES

AI App with Firebase Genkit Track Winner - Hack4Bengal S3 Certificate

- Developed an AI-powered chatbot using Firebase Genkit and Qwen2-0.5B model, hosted via Ollama and Vercel.
- Tech Stack: NextJs, React, Firebase, Firebase-Genkit, Ollama, Vercel and Qwen2

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

- Increased community engagement by 60% through content strategy, technical blogs, and event promotion.

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

- Spearheaded developer initiatives for 1,000+ students, hosting workshops on AI, Cloud, and Open Source technologies.