

# Debarshee Chakraborty

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## EXPERIENCE

<b>Backend Project Development Lead</b> , Resourcio - Apertre Website	Jun 2023 – May 2025
<ul style="list-style-type: none"><li>Engineered and deployed a high-traffic web application serving 5,000+ active users during open source season.</li><li>Optimized leaderboard generation algorithm, reducing runtime from 4 minutes to 30 seconds through query optimization and asynchronous data handling (an 87% performance gain).</li><li>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.</li><li>Tech Stack: TypeScript, NextJs, Tailwind, NestJs, Prisma, PostgreSQL, Clerk, GitHub Actions, Railways</li></ul>	

<b>Olake - Datazip (Open Source)</b>	GitHub Repository
<ul style="list-style-type: none"><li>Contributed to distributed database replication system for data lake ingestion using Apache Iceberg and Amazon S3.</li><li>Improved MongoDB splitVector operation resilience via retry logic and exponential backoff, increasing fault tolerance and reducing replication failures by 99%.</li><li>Tech Stack: Go, Java, Shell, SQL, Amazon S3 and Iceberg</li></ul>	

## 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

<b>Redis from scratch using Go</b>	GitHub Repository
<ul style="list-style-type: none"><li>Developed an in-memory data store implementing core Redis commands, protocol handling, and memory management in Go.</li><li>Tech Stack: Go, Linux, Memory</li></ul>	

<b>Httpbin - API using Django Rest Framework</b>	GitHub Repository
<ul style="list-style-type: none"><li>Built a RESTful API suite replicating HTTP protocol behaviors, supporting various request/response scenarios.</li><li>Tech Stack: Python, UV, Django, Django Rest Framework</li></ul>	

<b>Microservice Ecommerce Application using Spring Framework</b>	GitHub Repository
<ul style="list-style-type: none"><li>Engineered a microservices-based e-commerce platform with real-time messaging and observability stack.</li><li>Tech Stack: Java, Spring, Spring Boot, DGS, Postgres, Mongo, Docker, Kubernetes, Grafana, Open Telemetry and AWS</li></ul>	

<b>Nvidia GPU - Local RAG using PyTorch</b>	GitHub Repository
<ul style="list-style-type: none"><li>Built a RAG pipeline using PyTorch, integrating vector databases, custom embeddings, and Gemma-7B models.</li><li>Tech Stack: Python, PyTorch, Cuda, Gemma-7b, Transformers, Weights and Biases</li></ul>	

## EDUCATION

<b>Academy of Technology</b> , B.Tech with Hons. in Engineering	Oct 2022 – Jun 2026
<b>Methodist School, Dankuni</b> , Computer Science CISCE	Apr 2012 – Mar 2022

## ACHIEVEMENTS and EXTRA CURRICULAR ACTIVITIES

<b>AI App with Firebase Genkit Track Winner - Hack4Bengal S3</b>	Certificate
<ul style="list-style-type: none"><li>Developed an AI-powered chatbot using Firebase Genkit and Qwen2-0.5B model, hosted via Ollama and Vercel.</li><li>Tech Stack: NextJs, React, Firebase, Firebase-Genkit, Ollama, Vercel and Qwen2</li></ul>	
<b>Content Writer and Social Media Manager</b> , Google Developer Group Cloud Kolkata	Mar 2025 – Present
<ul style="list-style-type: none"><li>Increased community engagement by 60% through content strategy, technical blogs, and event promotion.</li></ul>	
<b>Lead Organizer</b> , Google Developer Group on Campus Academy of Technology	Sep 2024 – Present
<ul style="list-style-type: none"><li>Spearheaded developer initiatives for 1,000+ students, hosting workshops on AI, Cloud, and Open Source technologies.</li></ul>	