

VISHWAJEET SINGH SOLANKI

Software Engineer · Computer Science & Engineering (B.Tech) · IIT Kharagpur

✉ vishwajeetsolanki99@gmail.com | ☎ +91 63500 29817 | in LinkedIn | https://github.com/Vishwajeet-solanki

WORK EXPERIENCE

Dream11 | Software Engineer

Jul 2025 - Jun 2026

Contest Leaderboard Platform

- Architected and scaled a **low-latency** real-time leaderboard capable of ranking **50M entries in under 7 seconds**.
- Sustained **8M+ requests per minute** during peak live gaming events with consistent performance and high availability.
- Embedded Point Calculation System scoring in **Spark executors** as a two-phase in-process computation — pre-materializing player point breakups once per game-state change, enabling **50M-entry** scoring via pure **in-memory** arithmetic with **zero** per-spot network calls.
- Designed a salted **Spark** ranking pipeline with **Aerospike** score-to-rank maps for **O(1)** rank lookups at scale, decoupling batch recomputation from **sub-millisecond read paths**.

Order Management System

- Architected and built a multi-tenant Order Management System from the ground up using **Vert.x**, **PostgreSQL**, and **Redis** — exposing **22 REST APIs** for products, variations, inventory & orders with tenant-level configuration.
- Implemented dual order flows—Exclusive (unit reservation via PostgreSQL row-level locking) and Open (quantity-based)—to power both lottery and **e-commerce** functionalities on a single **multi-tenant platform**, achieving **92% test coverage** with **Mockito** and **Testcontainers**.
- Engineered the platform to handle peak traffic of **50K requests/minute**, while maintaining inventory **consistency** under high load.
- Delivered production-ready infra with **Docker**, **GitHub Actions CI/CD**, **AWS ECS**, and **OpenTelemetry** observability.
- Established centralized **observability** for **8 microservices** on **AWS** stage by deploying **Grafana** with unified **CloudWatch** and cost dashboards—enabling faster incident triage and visibility into **ECS deployments and infrastructure health**.

CNeRG - Complex Networks Research Group, IIT Kharagpur | UG Researcher

Oct 2023 - May 2025

Toxicity Begets Toxicity: Unraveling Conversational Chains in Political Podcasts — Prof. Animesh Mukherjee | Paper ↗

- ACM Multimedia 2025 (A*, Dublin)** — Co-authored a main-track paper on **toxic conversation chains**: a framework for how toxicity emerges, propagates, and decays in audio political discourse.
- End-to-end research pipeline — built a **52-podcast, 12,322-episode corpus** using **Whisper** + **Pyannote** + **Perspective API**; defined toxic chains, hand-annotated **200 chains** for change-point detection, and prototyped **LLM** methods to predict toxicity's temporal trajectory.

PROJECTS

GoBrief — Android Audio-Book & Learning App | Sole Developer

Jan 2026 - Present

- Independently engineered a full-featured Android audiobook app (**React Native** + **Expo**, **TypeScript**) on a serverless **Firebase** and **Cloudflare** stack with **RevenueCat** subscriptions — in **closed beta on Google Play**, architected for **~10k MAU** at **near-zero** infra cost.
- Architected an offline-first playback engine: **Firestore**→**SQLite** catalogue sync, **AES-256-CBC audio DRM** with server-issued **licenses** gated by **App Check** device attestation, and gapless multi-chapter playback with zero connectivity.
- Scaled the catalogue past **500 books** at near-zero marginal cost by building an end-to-end, **n8n**-orchestrated **multi-agent AI pipeline** — automated chapter summarization, **Chatterbox** TTS narration, audio encryption, CDN publishing, and **Firestore** catalogue ingestion.

SKILLS AND EXPERTISE

Languages & Frameworks: Java, Python, C++, C, TypeScript, JavaScript, SQL, React Native, Vert.x, Django, Flask, Spark, RxJava3

Architecture & Core Concepts: REST APIs, Microservices, Data Structures & Algorithms, Object-Oriented Design (OOD)

Datastores & Tools: PostgreSQL, Redis, Aerospike, MySQL, MongoDB, SQLite, Firestore, Caffeine, Datagrip, Postman, Git, RevenueCat

Cloud & Infrastructure: AWS, Docker, GitHub Actions CI/CD, OpenTelemetry, Grafana, GCP, Cloudflare Workers, Terraform

AWARDS AND ACHIEVEMENTS

- Secured **All India Rank 255** in **JEE Advanced 2021**, outperforming 0.18 million candidates.
- Secured **All India Rank 922** in **JEE Main 2021**, outperforming 1.3 million candidates.
- Attained the prestigious **NTSE** scholarship in **2019**, a national-level examination conducted by NCERT.

EDUCATION

B.Tech — Computer Science & Engineering — Indian Institute of Technology, Kharagpur | **CGPA: 7.91 / 10** | 2025

Class XII (CBSE) — Shiv Jyoti International School, Kota | **93.6%** | 2021

Class X (CBSE) — Modern School, Kota | **95.6%** | 2019