

EDUCATION			
Degree	Institute	Year	CGPA
B.Tech in Chemical Engineering	I.I.T. Delhi (New Delhi)	2024	7.20
AISSCE (XII Standard CBSE)	Woodbine Gardenia School (Kanpur)	2020	96%

EXPERIENCE

ZFunds Distribution Private Limited

Gurugram, Haryana

Software Engineer

February 2025 – April 2026

- Designed and built a **real-time data synchronization pipeline** (DynamoDB Streams → Redpanda → PostgreSQL), **reducing cross-database inconsistencies by 10%** and eliminating manual reconciliation workflows.
- Built an in-house **commission payout system** using DuckDB, Python and a custom rule engine, eliminating outsourcing and **cutting a 3–5 day process** to an automated internal pipeline.
- Delivered end-to-end product features including UPI Autopay SIP (**35% increase in monthly sales**) and a scalable NestJS service for Fixed Deposit booking (**sales worth \$1M in 6 months**).

PROJECTS

Forg: File Organising CLI Tool | Rust | Source Code

- Developed a regex-powered **high-performance CLI tool** for macOS and Linux systems, achieving a **peak logical throughput of 10GB/s** organising **20,000 files (21GB volume)** under **2 seconds**.
- Designed a **safety-focused execution model** featuring a dry-run preview mode, **strict overwrite protection** and a **sensitive-file exclusion model** ensuring **zero data loss** across automated file migrations.
- Streamlined the full software lifecycle by implementing automated configuration initialization, self-update mechanisms, backed by strong **unit tests in sandboxed environments**.

Panda-Q: Message Broker | TypeScript, NodeJS | Source Code

- Designed and built a single-node message broker inspired by Kafka, implementing **topic-partition architecture**, consumer group assignment, and offset-based consumption with **at-least-once delivery guarantees**.
- Implemented durability using **write-ahead logging (WAL)** and metadata tracking, enabling reliable crash recovery and zero message loss across broker restarts.
- Engineered a **high-throughput ingestion pipeline** using batching and an in-memory buffer with periodic broker loops for efficient message routing and processing.
- Developed a REST-based **producer/consumer interface with partition assignment**, offset commits, and a TPC mapping system for scalable and consistent message consumption.

Auth Wave: Authentication Service | NextJS, TypeScript, Express, MongoDB | Source Code | Link

- Designed and built a **pluggable authentication service** supporting email-password, OTP, and Magic Link flows with **secure session and user management**.
- Implemented security mechanisms including API rate limiting, account logout, and verification workflows to protect against abuse and unauthorized access.
- Developed a full-stack product with a **dedicated developer console**, transactional email workflows (Resend), and a published **NPM package** with comprehensive documentation for easy adoption.

TECHNICAL SKILLS

Languages: TypeScript, Rust

Backend: Node.js, Express, PostgreSQL, MongoDB, REST APIs, Distributed Systems Basics

Systems & Concepts: Concurrency, Message Queues, Write-Ahead Logging (WAL), Batching, API Design

Frontend: ReactJS/NextJS, React Native