

Ashwani Kumar Singh

FULL STACK DEVELOPER | BACKEND ENGINEER | CLOUD & DATA ENGINEER

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SUMMARY

Full Stack & Backend Engineer with 2+ years of experience delivering **production-grade web apps** and **cloud-native data pipelines**. Built scalable systems for **29K+ users** with **REST APIs**, **microservices**, and real-time **WebRTC**. Designed **ETL pipelines** on **Azure** (ADF, Databricks, Synapse) with **workflow orchestration** and **AI integration**. Strong in **system design**, **testing**, and **data structures & algorithms**.

EXPERIENCE

Programmer Analyst

Cognizant Technology Solutions

03/2025 – Present

Gurugram, Haryana

- **Multi-Vendor Data Pipeline (Distributed ETL)**: Architected and maintained a **fault-tolerant, event-driven ETL pipeline** ingesting data from 6+ vendors (Lago, Aptos, Logile, SAP, Mars DB, Periscope DB, Scan DB) into a **multi-layer data lakehouse** (RAW → Curated → Staging → Fact/Dim) using **Azure Data Factory**, **Databricks** notebooks, and **stored procedures** — ensuring **schema validation**, deduplication, and **data integrity** at each layer.
- **End-to-End Data Validation & Observability**: Designed and deployed automated **Python**-based validation scripts with **unit testing** and **SIT** (System Integration Testing) for daily comparison between RAW source and Azure Synapse tables, delivering **100% data accuracy visibility**, automated **failure alerts**, and **centralized monitoring** — eliminating **10+ hours** of daily manual pipeline monitoring.
- **Production Reporting Automation**: Built an **Azure pipeline** (Web-Activity, Notebook) with **ADF pipeline deployment** to auto-generate Excel summaries and email reports, reducing manual reporting effort by **99%** (30 minutes → 2 seconds).
- **Workflow Orchestration & Automation**: Automated daily sales summaries via **Databricks + Power Automate** with **pipeline orchestration** and **automated testing**, achieving **96% time reduction** (8 minutes → 2 seconds) and enabling real-time Teams delivery at scale.

Full Stack Engineer (MERN)

Banao Technologies

09/2023 – 04/2024

Bengaluru, Karnataka

- Delivered **20+ features** across 6 production applications (AWFE, CrossDok, Treato, Suvarna, Evallo, TEPS), increasing customer engagement by **25%** through **scalable backend services** and optimized frontend performance.
- Designed and optimized **high-throughput RESTful APIs** and **backend microservices** using **Node.js** and **MongoDB**, with **unit testing** (Jest, Mocha) and **CI/CD pipelines**, deployed on **Azure Web App Services** — reducing server downtime by **35%** and improving **scalability** for **10,000+** monthly active users.

PROJECTS

Live Cam | *React, TypeScript, Node.js, Express, Socket.IO, WebRTC, Google STUN*

09/2025

- Built a **group video calling** web application supporting multi-participant rooms using **WebRTC** peer-to-peer streaming with **Google ICE/STUN servers** for NAT traversal, and **Socket.IO** for real-time signaling and **event-driven** room management.
- Implemented **auto-reconnection handling**, camera invert, audio/video toggle controls, responsive multi-participant layouts, and a **TypeScript**-based UI with **unit testing** coverage — enabling fault-tolerant peer connections.

SHAREit | *React, Node.js, Express, MongoDB, Supabase Storage, Bootstrap*

07/2025

- Built a secure file and text sharing platform with **drag-and-drop uploads**, multi-file support, **response caching**, and **cloud storage** via **Supabase** — with file metadata and text snippets stored in **MongoDB** for efficient retrieval.
- Implemented **user authentication**, private protected pages for personal files/texts, URL detection, rich text editing, and **RESTful API** endpoints with **unit testing** — focusing on **data security** and **access control**.

- Built a **production-scale** social platform serving **29K+ users**, **1.8K+ posts**, **18K+ notifications**, **8.8K+ chat requests**, and **2.1K+ messages** — with authentication, real-time engagement, and **RESTful API + microservices architecture**.
- Designed a **scalable backend** with **Node.js** and **MongoDB** supporting efficient CRUD operations at scale, applying **system design** principles (indexing, query optimization) with **Jest** unit tests for reliability.

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, C, C++, SQL

Core Competencies: Distributed Systems, System Design, Data Structures & Algorithms, Scalability, Fault Tolerance, Event-Driven Architecture, RESTful APIs, Microservices, Object-Oriented Programming (OOP)

Backend & Frameworks: Node.js, Express, Nest.js, SvelteKit, Prisma ORM, PySpark, Hadoop

Frontend: React.js, HTML5, CSS3, Bootstrap, TypeScript

Databases: MongoDB, MySQL, PostgreSQL, Supabase, Firebase, Redis, Azure Synapse Analytics

Message Queues & Streaming: Apache Kafka (fundamentals), Message Queues, Pipeline Orchestration, Power Automate

DevOps & Infrastructure: Docker, Kubernetes (fundamentals), CI/CD Pipelines, GitHub Actions, Azure DevOps, ADF Pipeline Deployment, Git

Cloud Platforms: Microsoft Azure (Data Factory, Databricks, Web App Services, Synapse Analytics), Google Cloud Platform

Testing & Quality: Unit Testing, Integration Testing (SIT), Test-Driven Development (TDD), Jest, Mocha, Pytest

Observability & Monitoring: Automated Alerting, Pipeline Failure Detection, Data Validation, CI/CD Monitoring

CERTIFICATIONS

Microsoft Certified: Azure AI Engineer Associate

[Credential Link](#)

Microsoft Certified: Fabric Data Engineer Associate

[Credential Link](#)

Microsoft Certified: Fabric Analytics Engineer Associate

[Credential Link](#)

Microsoft Certified: Azure Fundamentals

[Credential Link](#)

GitHub Actions

[Credential Link](#)

GitHub Administration

[Credential Link](#)

GitHub Foundations

[Credential Link](#)

LEADERSHIP & ACHIEVEMENTS

- Solved **586+ problems** on LeetCode (**Top 8% globally**), demonstrating strong **Data Structures & Algorithms** and problem-solving depth.
- Led **30+ interns** as **Tech Lead** at Alhansat Solutions, managing end-to-end project delivery and improving team efficiency by **30%**.
- Secured **4 offers** from top IT companies — Wipro, Capgemini, **Cognizant**, and Heliverse — through competitive hiring processes.
- Won **1st place** in Code Swap and **2nd place** in Blindathon among **200+** participants, demonstrating adaptability under pressure.
- Awarded **50% merit scholarship** on college tuition for sustained academic excellence.

EDUCATION

Amity University

B.Tech in Computer Science and Engineering | CGPA: 8.77/10 (~3.7/4.0)

Lucknow, UP

Sept. 2021 – July 2025

St. Thomas School

High School and Intermediate | CGPA: 8.3/10

Chitrakoot, UP

July 2012 – June 2021