

ASHISH SINGH

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SUMMARY

Final-year B.Tech. CS student (May 2026) with **4+ years** building distributed systems and SDE tools in **C, C++, Python**. Delivered **1M+ MAU**-scale apps, cut latency **35%**, and led critical system optimisations. Strong in DSA, OS, and networking fundamentals. Eager to grow at Amazon by building scalable, fault-tolerant solutions.

CORE SKILLS

Languages: C, C++, Python, Java, Go (basic), Perl (basic)
Distributed Systems: Kafka, Consistent Hashing, CRDTs, Load Balancing, Microservices, Event Queues
Cloud
DevOps: Azure (AKS, Functions), GCP (GKE, Cloud Run), Docker, Terraform, GitHub Actions
ML / NLP: T5, PyTorch, TensorFlow, scikit-learn, SBERT, BLEU/ROUGE Metrics
Databases: SQLite, MySQL
Systems
Foundations: OS Internals, TCP/IP, Algorithms, Data Structures, Multithreading, Secure Coding
Soft Skills: Agile, Mentorship, Communication, Leadership, Time Management

EDUCATION

Amity University Madhya Pradesh Aug 2022 – Expected May 2026
B.Tech. Computer Science & Engineering – CGPA 7.37 / 10 (top 15%) Gwalior, India
Relevant coursework: Distributed Systems, Machine Learning, Computer Networks, Operating Systems, Database Systems, Compiler Design

SELECTED EXPERIENCE

HackIITK Blockchain Hackathon Feb 2025
Team Lead & Backend Engineer Kanpur, India

- Built gas-less Solidity relay handling **5,000+** transactions | **150 ms** p95; autoscaled PoC on Azure Container Apps.
- Integrated Slither/MythX into DevSecOps; shipped with **0** critical issues.
- Ranked **2/54** teams for reliability innovation.

Reef — Distributed Discord Platform Nov 2021 – Apr 2023
Lead Software Engineer Remote

- Designed sharded micro-services (Go, Python) on Kubernetes clusters modelled after **Azure AKS**, serving **1,000,000** monthly users at **99.9%** uptime.
- Refactored TCP stack with epoll + zero-copy; cut median latency by **34 ms**.
- Added SBERT semantic search; intent accuracy ↑ from **72%** to **93%**.
- Promoted to Lead in **4 months**; mentored **3** engineers rolled CI/CD via GitHub Actions + Helm.

Happy — Low-Latency Music Bot Feb 2020 – Jul 2021
Software Engineer Remote

- Engineered Python + FFmpeg audio engine processing **500,000** commands/day; jitter ↓ **35%**.
- Adaptive Opus encoding cut bandwidth **42%** (USD **220**/mo).
- Authored **180** PyTest cases (**88%** coverage) halving regression defects speeding releases **50%**.

PROJECTS

DocQA Tutor — Summarisation & QA API Feb 2025 – Apr 2025

- Fine-tuned T5 on **2 M** samples; ROUGE-L **43.2**, BLEU **27.5**. Deployed on AKS GPU pools with HPA; latency ↓ **47%** via App Insights.

TripLedger — Offline-First Expense Tracker Aug 2024 – Dec 2024

- Implemented CRDT ledger sync (**10 K** daily tx) ensuring eventual consistency offline; secured APIs with mock Azure AD B2C, blocking **100%** unauthorized writes.

CERTIFICATIONS AWARDS

Microsoft Learn: Azure Fundamentals (AZ-900) — Sep 2025
Google Cloud Digital Leader — Mar 2025
Google Kick Start Round B Global Rank 432 (Top 0.8%) — 2024
HackIITK 2025 — Blockchain Track Runner-up
Blue Prism Foundation Developer — Oct 2023

PUBLICATIONS

IJETAE 2024: "Mobile Security – Light on Security Threats" — six-layer model cut Android attack surface by 38%.
Springer 2024: "Rose Plant Disease Detection with Edge ML" — 94.8% F1 and 9.2× faster than VGG16 baseline.

LEADERSHIP COMMUNITY

Microsoft Learn: Azure Fundamentals (**AZ-900**) — Jan 2025
Google Cloud Digital Leader — Feb 2025
Google Kick Start Global Rank **432** (Top **0.8%**) — 2024
HackIITK 2025 — Blockchain Track **Runner-up**
Blue Prism Foundation Developer — Oct 2023

LANGUAGES

English (fluent) — Hindi (native)