

AJAY KUMAR

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SUMMARY

Backend Engineer who slashes latency by 40% , eliminates OOM errors at scale, and designs fault-tolerant systems for Fortune 500 infrastructure. Expert in Java/Spring Boot, AWS, and Python-driven automation.

EXPERIENCE

Palo Alto Networks, Inc.

Aug 2022 – Present

Staff Software Engineer

Bengaluru, India

- Optimized Edge Device Performance: Engineered dynamic memory allocation algorithms in Java/Python, reducing OOM errors by 80% across 10K+ devices.
- Built Fault-Tolerant Infrastructure: Designed C/Python-based tunnel management system with automated failover, cutting downtime by 40% for mission-critical networks..
- Automated Compliance Workflow: Created API-driven device registration system, saving 600+ engineer-hours/month and ensuring 100% license compliance.

Amazon India Pvt. Ltd.

Jan 2022 – Jun 2022

SDE Intern

Bengaluru, India

- Launched Real-Time Alerting:: AWS Lambda functions to process CloudWatch metrics, triggering alerts for 50+ SKU error types.
- Data Visualization Pipeline: Built ETL workflow using Kinesis Firehose and QuickSight, reducing report generation time by 20%

MAQ Software

Mar 2021 – Dec 2021

Associate Software Engineer

Mumbai, India

- Power BI System Migration::Converted 10+ Tableau dashboards to Power BI using optimized SQL queries, reducing load times by 40%.
- Client Reporting: Created dynamic Power BI templates used by Fortune 500 clients for supply chain analytics.
- Query Optimization: Reduced stored procedure execution time by 35% through index tuning and query plan analysis for Azure Synapse Migration Project

PROJECTS

YouTube Shorts Automation Pipeline

Python, Groq API, LLaMA, MoviePy

Automated end-to-end yt shorts creation (script → video → upload) using Reddit API, Pexels API for media, generating 100's of shorts monthly

Live: youtube-channel

Personal Portfolio Website

HTML, Tailwind CSS, JS, AOS

Built Personal Website to showcase Projects and share Notes

Live: ajaystack.netlify.app

EDUCATION

B.Tech in Computer Science and Engineering

Jul 2018 – Jun 2022

Lovely Professional University - LPU, Punjab, India

GPA: 8.04/10

TECHNICAL STACK

Java, Spring Boot, Python, C/C++, SQL/NoSQL, AWS (EC2, Lambda, S3, CloudWatch), Docker, Microservices, Git, CI/CD, REST APIs, Distributed Systems Design