Gagandeep Singh

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Skills

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

Cloud & Backend: AWS (EC2, Security group, VPC, MemoryDB, MSK/Kafka, ECS, Lambda, S3, RDS, Secrets Manager), Node.js, Express.js, Docker, PostgreSQL, MongoDB, Microservices, REST APIs, JWT

Work Experience

Invenco By GVR, Bangalore Jul 2025 - Present

Associate Software Engineer Jun 2026 - Present

- **Owned end-to-end authorization caching solution** from infra to code, replacing 100M+ record materialized view with event-driven in-memory cache; **cut authorization latency from 1-5s to <10ms p99** and event processing from 100-500ms to 5-50ms
- Built **8 CDC event handlers** (Kafka consumers on ECS) with parallel reads, pipelined writes, optimistic locking, DLQ and <60s lag observability; scaled design to **100K QPS** at $5.9K/yr vs $28K/yr alternative
- Published **internal reusable authorization library** (TypeScript) with single-call typed APIs, connection pooling and TLS retry; eliminated main DB I/O load and standardized auth across core backend services
- Delivered **70% of remote provisioning system for service certificate hierarchy** - infra, backend service and deployment - automating issuance and zero-downtime rotation of mTLS certificates; **saving $50K/week** by moving from manual on-site provisioning to cloud-automated workflow
- Implemented CA hierarchy infra on AWS (ECS, Secrets Manager, RDS, SQS) with zero-downtime rotation, retry handling, and CloudWatch metrics/alarms; **reduced manual provisioning effort by 80%** and provisioning errors by 60%
- **Technologies:** Node.js, TypeScript, Golang, AWS (MemoryDB, MSK/Kafka, ECS, Lambda), PostgreSQL, Microservices, Docker

Software Development Intern Jul 2025 - Jun 2026

- **Increased team productivity by 40%** by developing custom AI integrations and IDE workflows automating development, documentation, and GitHub/Confluence workflows
- Remediated **pentest findings** (stored XSS, CSV injection, user enumeration, access-control gaps, auth rate-limiting) and fixed **cloud security vulnerabilities** via runtime upgrades and dependency patches
- Built **backend REST APIs for IoT core platform** (asset, auth, device management) and contributed to **payment bridging system** with API integrations and fault-tolerant error handling
- **Technologies:** Node.js, Golang, REST APIs, SQL, PostgreSQL, AWS Lambda, Microservices, GitHub, Confluence API

Education

New Horizon College of Engineering - Bangalore 2022 - 2026
B.E. in Computer Science and Engineering ***CGPA: 9.11/10***

Project Work

- **Autodoc - AI Documentation Platform:** AST parsing, call graphs, RAG chat with auto Git-push; JS/TS/Java/Python + PDF extraction | *Node.js, React, RAG*
- **Golang Microservices:** 5 services on gRPC + RabbitMQ with Docker Compose, Postgres/MongoDB, central auth | *Golang, gRPC, Docker*
- **Java AST Parser (NPM):** Published package to parse Java into ASTs via custom lexer | *Node.js*

Certifications

AWS Certified Cloud Practitioner (CLF-C02) - AWS
Git and GitHub - Udemy
Node.js - Complete Guide - Udemy
Microservices in Golang - Udemy

Achievements & Participation

3x Spot Awards (Back-to-Back) - Invenco by GVR
Smart India Hackathon (Jan 2023) - ID 1637
Mentor, Byte Battle Hackathon (Nov 2024) - Led team to 1st place
CP Hackathon, NHCE (Mar 2023)