

PALLAV NAG

+91 7976785650 · pallavnag9@gmail.com · linkedin.com/in/pallavnag · github.com/pallav-nag · palnag.in

SUMMARY

Software Developer at Amadeus IT Group with 2 years of experience building backend and distributed systems for global airline operations. Delivered **€172K/year** in combined cost savings through SLA and log-processing optimizations, cut **90 developer-effort days** via automation, and drove a **70–80× reduction in AI token usage**. Recognized with a **Spot Award (Q3 2025)** among a 40-person team for high-impact, independently owned work.

EXPERIENCE

Amadeus IT Group · Software Developer 1

Jul 2024 – Present | Bengaluru, India

Airline Departure Control & Flight Management Systems

- **€172K/year saved:** Independently diagnosed and resolved a critical SLA breach (€150K) and eliminated log-processing overhead (€22K) in high-traffic airline operations services — traced the code paths, designed the fixes, and shipped to production.
- **90 developer-effort days saved:** Automated a previously manual reporting and data workflow, returning recurring engineering capacity to the team.
- **70–80× AI token reduction:** Drove org-wide adoption of AST-based subgraph extraction (Graphify), replacing exhaustive file loading to slash per-query LLM consumption.
- **70% fewer security vulnerabilities:** Integrated BlackDuck and Fortify scanning gates into the CI/CD pipeline, remediating critical issues proactively.
- **Spot Award (Q3 2025):** Recognized out of a 40-person team for ownership, technical depth, and consistent delivery across high-priority workstreams.
- Led a core-service middleware upgrade, was primary POC for a zero-impact quarterly data migration, recovered undocumented legacy logic via log/DB flow tracing, and mentored new interns through internal knowledge sessions.

Amadeus IT Group · Software Developer Intern

Feb 2024 – Jul 2024 | Bengaluru, India

Real-Time Data Pipeline — Check-in to Flight Management Integration

- Designed and built an end-to-end, event-driven pipeline streaming real-time passenger and baggage updates from check-in to flight management, replacing batch-refresh polling with live change data capture.
- Architected on Kafka Connect + Debezium + MongoDB; built the Java (JAX-RS) ingestion service and containerized the stack with Podman. Presented at internal showcase; outcomes shipped to the production roadmap.

PROJECTS

Systematic Momentum Scanner · Nifty 200 positional quant scanner

Python · pandas · SQLite · Gemini

- Fetches NSE market and delivery data into SQLite and scores every Nifty 200 stock on 30-day momentum and 45-day trend horizons from ~15 technical/volume indicators; emails a sector-capped daily Top-10 with disaster-stop and hold-and-rotate levels.
- Built a point-in-time backtesting harness (Information Coefficient, decile returns) reusing the production scorer; verified market-neutral alpha of **+1.14%/pick (45d trend)** and **+0.54%/pick (30d momentum)** vs Nifty 200 over 271 trading days (survivorship-biased, single regime, pre-cost). Gemini news/broker extraction is used as a downside-only risk gate, after an event study showed no tradable news edge.

Optimal Code Review Agent Pipeline · Multi-agent LLM PR reviewer

Python · Redis · Graphify MCP

- Specialised agents (Static Analyser, LLM Reviewer, Test Suggester) coordinate via Redis and report through a Critic/Scorer; agents query a code graph via Graphify MCP instead of loading full files, cutting review context ~85% (~6K tokens/review) and returning one prioritised comment per pull request.

TECHNICAL SKILLS

Languages: C++, SQL, Java, Python

Backend & Frameworks: Java Spring Boot, REST APIs, Maven, Node.js

Data & Messaging: Apache Kafka, Kafka Connect, Debezium (CDC), MongoDB, Redis, SQLite

AI & Data: Multi-agent LLM pipelines, Gemini API, Graphify MCP, pandas/NumPy, backtesting (IC)

DevOps & Cloud: Docker/Podman, AWS (Certified Cloud Practitioner — EC2, S3, IAM, RDS), CI/CD

Practices: Event-driven architecture, Distributed systems, Performance & Reliability Engineering

EDUCATION

Vellore Institute of Technology · B.Tech, Computer Science Engineering

2020 – 2024

GPA: 8.35 / 10 · Coursework: Software Engineering, OS, Data Structures & Algorithms, Computer Architecture

CERTIFICATIONS

AWS Certified Cloud Practitioner · Amazon Web Services

Jul 2023 – Jul 2026