Arnav Dasgupta

Backend Engineer · Distributed Systems & Production AI

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Dutch residence permit (partner) · full right to work, no sponsorship needed · available immediately

SUMMARY

Backend engineer, 6 years at SAP. I built the core of SAP's OpenTelemetry routing platform, which moves ~6 TB of telemetry a day for 300+ cloud services across 17 datacentres at 99.9% uptime. When onboarding was eating a third of my team's sprints, I built an AI agent over a weekend and shipped it a week later; it cut that work by 90%. Merged contributor to the OpenTelemetry Java SDK. Based in Amsterdam, full right to work, available now.

EXPERIENCE

Software Engineer II, SAP Labs India (Bengaluru) **Aug 2020 – Oct 2026**

Telemetry platform: OpenTelemetry, Kafka, Java

- Built the core of SAP's OpenTelemetry routing platform: **300+ cloud services, 17 datacentres, ~6 TB/day of logs, traces and metrics (6–7k export batches/sec) at 99.9% uptime**.
- Built the client library (Java and Node.js) every one of those services integrates with, and worked through each team's integration constraints to get all 300+ onboarded: geo-discovery, nearest-datacentre routing, automatic mTLS certificates.
- Added back-off and cross-datacentre failover that reroutes exports during outages: **90% fewer data-loss incidents**.
- Designed Kafka event schemas that drive tenant onboarding through GitHub Actions: **2 days to near-instant**, 50 in parallel, with tenant resolution for high-volume streams.
- Led the HTTP/1 to HTTP/2 migration: **+45% throughput** from connection multiplexing.
- Built a reusable autoscaler for SAP BTP that scales on Kafka consumer lag, not just CPU and memory.
- Fixed a bug in the **OpenTelemetry Java SDK** where a "+" in resource attributes was silently decoded as a space; replaced the decoder with a W3C Baggage-compliant one, merged upstream (PR #8059).
- Mentored 3 interns through 7-month rotations.

Onboarding agent: in production, built and owned alone

- Spotted from Jira data that onboarding cloud services to our platform was eating **~4 days of every 12-day sprint**. Built a prototype over a weekend, hardened it, and released it to SAP's cloud service teams a week later.
- **180 users in the first week, ~400 questions a day.** Cut onboarding, troubleshooting and misconfiguration work from **~31 to ~3 person-days per quarter**.
- Designed a staged trust model: teams onboard and verify their dev/test landscape through the agent's chat, and once they approve it, the agent onboards all their production tenants on its own. No ticket, no hand-off.
- Built an evals loop with an admin UI that captures live conversations, so every user correction becomes a fix to the prompt or knowledge base; traced end to end with OpenTelemetry and Langfuse.
- Built retrieval over wikis, READMEs and standards in a vector store, and fixed the misses users reported by tuning chunking, embeddings and a glossary cache for internal jargon.
- Claude Opus via the Anthropic SDK on SAP AI Core; every config change the agent makes is a commit to version-controlled YAML in GitHub, so it can be audited and reverted.

SAP SuccessFactors Payroll: cloud-native rebuild

- Built the core Absences API, data model and UI for the next-generation payroll engine used in global enterprise payroll.

SKILLS

Programming: Java (Spring Boot), Node.js, Python, SQL
Distributed systems: Apache Kafka, OpenTelemetry, gRPC, protobuf, REST, microservices, mTLS
Infrastructure & observability: Kubernetes, Docker, GitHub Actions, Jenkins, Grafana, Dynatrace, Kibana
AI engineering: Anthropic SDK (Claude), SAP AI Core, RAG, vector search (SAP HANA), evals, Langfuse, MCP servers
Data: PostgreSQL, SAP HANA, MongoDB

EDUCATION

M.Tech. (Master of Technology), Software Engineering, BITS Pilani (part-time, while working) **2020 – 2024**

Full scholarship. Dissertation: Efficient Resilience in Distributed Cloud Systems.

B.Sc., Computer Applications, MIT World Peace University, Pune **2017 – 2020**

Languages: English (fluent); Dutch (beginner, lessons starting Nov 2026)