# Ravi Gyani Munich, DE

[GitHub](http://github.com/rgyani) | [Blog](https://blog.rgyani.com/) | [LinkedIn](https://www.linkedin.com/in/rgyani/) | [rgyani@yahoo.com](mailto:rgyani@yahoo.com) | (+49) 151 202 87955

## Quick Summary

* 20+ years in software engineering, specializing in **Cloud Computing**, **Serverless solutions** and Big Data.
* Reputed as a **Problem Solver**, bringing out-of-box approaches to system design
* Focused on **optimizing performance** and designing **cost-effective** architectures.
* Advocate for validating ideas via proof-of-concepts (POCs).

## Technologies

* **Cloud (AWS):** IAM, EC2, S3, Lambda, Step Functions, Batch, API Gateway, AppSync, DynamoDB, IoT, EventBridge, CloudWatch, RDS, Aurora, Redshift, Glue, Athena, ECS, Elastic Beanstalk, CloudFront, Route 53, ECR, EMR, Kinesis, Greengrass, and more.
* **Infrastructure & DevOps:** Docker, CDK, Terraform, CloudFormation
* **Big Data & Streaming:** Hadoop HDFS, MapReduce, HBase, Kafka, Flink, Spark, Redis
* **Programming Languages:** Python, Java

## Certifications

* AWS Certified Security Specialty (SCS-C01) - Mar 2023,
* **AWS Certified Solutions Architect Professional (SAP-C01)** - Oct 2020
* AWS Certified Solutions Architect Associate (SAP-C02) – Oct 2020
* Databricks Certified Developer: Apache Spark 2.X – Jul 2019
* Confluent Certified Developer for Apache Kafka – Jul 2019

## Career Highlights

## **Advocated and delivered an AI-first search experience.**

* Designed and implemented an **NLP-driven interface for OpenSearch**, replacing traditional GUI filters with natural language queries
* Fine-tuned a lightweight seq2seq model on Claude 3 generated training data, deployed via horizontally scaling on AWS ECS for low-latency inference.
* **Automated model lifecycle**: dataset generation (Bedrock, S3), fine-tuning (GPU EC2), containerization (ECR), and deployment (ECS), enabling rapid iteration as schemas evolve.

**Slashed Cloud Compute Costs by 90%**

* Inherited an inefficient batch-processing workflow bleeding money.
* Re-architected it using Step Functions, Batch, Spot Instances, and S3 runtime mounts.
* Cut compute costs by 90%, while improving reliability and scalability.

## **Replaced Legacy Product with National-Scale Big Data Platform**

* Took ownership of a failing SQL Server-based location tracking system.
* Built a custom big data platform from scratch using Hadoop, HBase, Kafka, and Spark
* Delivered real-time national security subscriber profiling, scaling analytics across billions of location records.

## **Automated AMI Generation: 1 Day to 5 Minutes**

* Manual AMI builds for a proprietary Windows workload were blocking delivery.
* Designed a fully automated AMI pipeline using Step Functions for orchestration.
* Leveraged AWS Sessions Manager for on-demand provisioning, usage monitoring, and automated cleanup.
* Reduced provisioning time from a full day to 15 minutes, while lowering costs by releasing resources when CPU utilization dropped.

## **Created Custom Developer Tooling When Nothing Off-the-Shelf Worked**

* Wrote a Grafana plugin in Go + Angular to integrate with MapR clusters.
* Built a custom Zeppelin interpreter to bridge Git workflows.
* Eliminated bottlenecks, made big data workflows dev-friendly, and shipped what vendors couldn’t

## **Built Serverless In-Vehicle Support Platform**

* Designed a secure, real-time support system using AppSync, Chime, and Cognito for OEM vehicle systems, with no server maintenance overhead.

## **Built Real-Time Federated ML Pipeline for Automotive Fault Detection**

* **Leveraged Flower federated learning** with AWS IoT Core, ECS, and Greengrass to train models across distributed vehicle telemetry without centralizing sensitive data.
* Enabled real-time fault detection and fleet-wide model improvements, ensuring low-latency classification while preserving data privacy at the edge

**Steered Architecture for High-Stakes Clients: BMW, VW, Amazon, Continental**

* Reviewed architectures, built POCs, and led technical direction across multiple clients.
* Replaced brittle systems with scalable, observable, secure solutions.

## **Took Over Projects Others Dropped — and Delivered**

* Whether it was rewriting pipelines, designing RBAC from Cognito internals, or refactoring critical services, delivered results where others got stuck.
* Reputed for "gets-it-done” in every client engagement.

## Work Experience

**Senior Principal Engineer at Tradebyte (Zalando), Jan 2025– present**

* Architected and led the transition from a tightly coupled monolith to a distributed, event-driven system, unlocking faster feature delivery and improved fault isolation.
* Spearheaded POCs and migration blueprints for AWS cloud adoption, aligning technology choices with business cost and performance goals.
* Influenced strategic technical direction by aligning architecture choices with long-term scalability and business growth.

**Senior Solutions Architect at Luxoft GmbH, Munich, Jan 2021 – July 2024**

* Consulted with clients including Amazon, BMW, Volkswagen, and Continental.
* Led cloud migrations, cost optimizations, and PoC architecture efforts.
* Mentored engineers and led internal training on CDK, Terraform, and serverless.

**Solutions Architect — Polaris Wireless, Bangalore (Feb 2014 – Aug 2020)**

* Architected a scalable location analytics platform for national security use.
* Led big data transformation from SQL Server to Hadoop, HBase, Spark.
* Developed a patented system for real-time subscriber profiling and location estimation (US20230050646A1), enabling scalable analytics for national security applications.

**Software Engineer & Entrepreneur — Various / KNOCKS Solutions (2003 – 2014)**

* Worked across mobile (iOS/Android), .NET WinForms, and C# development.
* Founded KNOCKS Solutions (2006–2009) and built a commercial .NET Winforms UI components suite with features like Outlook-style calendars, Visual Studio-style docking controls, and Office 2007- style ribbon interfaces.

## Education

**Bachelor of Engineering (Netaji Subhas Institute of Technology, Delhi) 1999-2003**