

Mayank Raj

Lead Member of
Technical Staff,
Security @ Salesforce,
SaaS Founder



Experienced Software Engineer specializing in high-performance AI/ML and Big Data solutions, with expertise in designing resilient, fault-tolerant cloud infrastructures.

Regular conference speaker, trekking enthusiast, and violinist.

BigData | AWS | Cryptography | System Architecture | Distributed Systems | Serverless Systems | Tech Author

Creator & Maintainer of...



ThePostRoster

JavaScript, NodeJS, Python

AWS, GCP, EC2, ECS, S3, Lambda,
Redshift, Kinesis, API Gateway,
CloudFormation etc

GrayLog, Sentry, CloudWatch, X-Ray

RDS, PostgreSQL, RedShift,
DynamoDB

Neo4j, AWS Neptune, DGraph

Cost effective, Secure and Reliable
Infrastructure Design, Serverless
Architecture

Reproducible Infrastructure -
CloudFormation, SAM, CDK
Docker, Git

Cryptographic Key Management,
Cryptographic Protocols,
Public Key Infrastructure

Violinist, Trekking, Autonomous
Drones, Custom Keyboard

Core Contributor to Firefox

Authoring book titled "Hands on AI
Projects" with O'Reilly

Salesforce

Lead Member of Technical Staff

March '22 - Present

Salesforce is a leading cloud-based CRM platform that streamlines customer relationship management and business operations, and includes subsidiaries like Slack for team collaboration and Tableau for data visualization.

- **Role:** Founding engineering leader, KMS team India. Beyond core technical leadership, I owned Agile operations (sprint planning, grooming, retrospectives).
- Key Contributions:
 - Led efforts to **improve service availability from 99.99% to 99.999%**.
 - Architected and developed benchmarking tools and caching layers, **increasing system throughput by 42%** and **reducing costs by 71%**.
 - Optimized cost-to-serve, resulting in **savings of ~\$1.6 million/Yr**.
 - **Integrated KMS to application mesh across 30+ data centers**, overseeing R&D, monitoring, resilience, disaster recovery and communication.
 - Supported the service with 12x7 on-call duties, managed various P0-P4 incidents, and drove RCAs across the organization.
- Additional Involvements:
 - Participated in global hackathons, reaching finals and serving as a judge and mentor at global Salesforce level.
 - Built an AR bot assisted by LLMs for Salesforce conferences, used by over 470+ unique users across 4 conferences

Cactus Communications

Associate Director of Engineering (Principal Solutions Architect)

July '20 - March '22

Cactus is a technology company accelerating scientific advancement. With offices in London, Princeton, Singapore, Tokyo, and Mumbai; a workforce of over 3,000 experts.

- **Led a cross-functional team of 15+ engineers in India and Denmark.**
- Bridged the gap between the business and tech; bootstrap projects from the idea stage to enterprise scale, oversaw hiring across verticals
- Architected BigData platform capable of **ingesting 1.5Tb/week** and **generating 4.5Tb/week**, efficiently **managing a 250Tb data lake**.
- Developed a data processing pipeline for machine learning applications using **24K vCPUs and 48Tb of memory, processing 4.5Tb of data** in under 2.5 hours at **20% of the anticipated cost** from AWS BigData team.
- Architected a truly serverless highly available API that orchestrates **~100K of long running requests with sub-second SLA**



hello@mayankraj.com



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MayankRaj.com

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Apptale

Founder / Creator & Maintainer

Publicly released on Dec '20

- Sideproject grown out of personal need, now used to monitor services by many
- Designed architecture to offered as a SaaS at **1/15th the cost of competitors**
 - Designed a monitoring service with **orchestration across all 51 AWS availability zones**, ensuring high availability.
 - API layer built with support for GraphQL & REST, global database via DynamoDB and payment & subscriptions via Stripe
 - **Built with Amplify, CloudFormation, Appsync, API Gateway, DynamoDB, Lambda** and more

Cactus Communications

Solutions Architect

May '18 - Jun '20

- Reported to the CTO
- Designed and **developed a graph database** engine that **queries ~8Tb of raw data in under \$30/query** with avg query time of 8 minutes
 - Benchmarked to **outperform Neo4j and AWS Neptune**, in cost and speed
 - **Collaborated with the AWS Neptune** team on benchmarking
- Designed and maintained the infrastructure of projects that achieved state-of-the-art scores in Natural language Detection & Correction, NLP and Vision
- Established best practices and guidelines for cloud operations across AWS, Azure, and GCP, and standardized infrastructure templates
- Reported and **worked with AWS S3 team** on fixing bug on prefix throughput
- Developed microservices spread across Windows and Linux

Senior Software Engineer

Jul '16 - Apr '18

- Built clickstream application with AWS Kinesis and Redshift. Designed to **ingest ~5M records/day**, operating at **under \$9/day**.
- Designed daemon to **monitor** activities on **45+ web properties and 12+ servers**
- Developed Data Lake with Hot and Cold Storage layer to optimize for cost and data availability. Manages over **4Tb+ data, powering 120+ Dashboard** for BI
- Designed and built a service that connects any user on the same page, in real-time using web sockets. Service **scaled from 47 users to 2.7K in 36 minutes**.

Directi

Software Developer - Consultant

May '16 - Jul '16

- Designed and developed a full stack application to handle recruitments and track the candidate from the time they enter to the time they are hired
- Also handle walk-in candidates by generating their profiles on site

WorkAmp, AIESEC, Frapp.in, TCS, HamaraEvent...

Software Developer - Consultant

Feb '14 - Apr '16

Education

Bachelor in Technology, Computer Science
NMIMS University, Mumbai, India



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