

# Mayank Raj

**SaaS Founder  
& Associate Director of  
Engineering**

aws  
certified  
**Solutions  
Architect**  
Associate

aws  
certified  
**Solutions  
Architect**  
Professional

I'm a solutions architect with extensive experience in not only building high performant products powered by AI/ML & Big Data, but also designing resilient and fault tolerant cloud infrastructure for it. I have architected products that can scale to handle 100x load within minutes and yet remain cost effective. I have also built a graph database engine to work with more than a billions of nodes and edges.

JavaScript | Python | AI | NLP | BigData | AWS | Graph Database | System Architecture | Distributed Systems  
Serverless Systems | CI/CD | Cloud Automation | Tech Author | Automated Drones

JavaScript, NodeJS, Python

AI, ML, NLP, PyTorch, TensorFlow, Pandas,  
Keras, TensorFlow.js, ML5.js, WebVR, Ar.js,  
Three.js

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

Docker, Git, Logstash, Linux

Cost effective, Secure and Reliable  
Infrastructure Design, Serverless  
Architecture  
Reproducible Infrastructure -  
CloudFormation, SAM, CDK

Automated Drones, Ardupilot, PX4, Custom  
Keyboard, IoT  
Core Contributor to Firefox

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

## Apptale.io

Founder & CTO

Dec '20 - Present

- Apptae grew out from being a personal need to a side project now offered as a SaaS
- Built to have monitoring service orchestrated across all 51 AWS availability zones (datacenters) for a truly highly available monitoring system
- API layer built with support for GraphQL & REST, global database via DynamoDB and payment & subscriptions via Stripe

## Cactus Communications

Associate Director of Engineering

July '20 - Present

Cactus Communications is a technology company accelerating scientific advancement. We offer AI-powered scholarly publishing solutions for journals and researchers.

We have offices in London, Princeton, Singapore, Beijing, Shanghai, Tokyo, Seoul, Aarhus, and Mumbai; a global workforce of over 3,000 experts; and customers from over 190 countries.

- Bootstrapping multiple products in the domain of AI/ML and BigData
- Lead a team of across India and Denmark
- Architected BigData platform that ingests over 1.5Tb of data and generates over 4.5Tb of data every week
- Architected a truly serverless highly available API that orchestrates over a million of long running requests with sub-second SLA
- Gap the bridge between the business and tech side; bootstrap projects from idea stage to enterprise scale

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## Cactus Communications

Solutions Architect

May '18 - Jun '20

- Report to the CTO
- Designed and developed a graph database engine to process over a billion nodes and hundreds of billions of edges in a cost effective manner
- Designed and maintained the infrastructure of projects that achieved state-of-the-art scores in various applications of language detection and correction, NLP and Vision
- Setup the best practices and implementation guidelines for the team to operate on Cloud, across AWS, Azure and GCP
- Managed team that grew from 1 to 16. Overall grew from 1 to >60

Software developer

Jul '16 - Apr '18

- Built a monitoring tool to monitor and track activities over various platforms
- Designed ETL pipelines to process over a million records on a daily basis to be ingested into AWS Redshift
- Designed Datalake with Hot and Cold Storage layer to optimize for cost and data availability
- Designed and built a service that allows users to communicate with anyone else on the same page using web sockets. Scaled the service 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
- Generate automated reports and email trigger

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

Software Developer - Consultant

Feb '14 - Apr '16

## Education

Bachelor in Technology, Computer - NMIMS University

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✉ [hello@mayankraj.com](mailto:hello@mayankraj.com)

☎ +91 83693 39460

**MayankRaj.com**