UTKARSH RAI

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WORK EXPERIENCE

Salesforce Bengaluru, KA

Software Engineer 2

Feb 2025 - Present

- AWS Auto Scaling Groups for management of Sitebridge EC2 instances, decreasing maximum instance level downtime from 2 hours to 10 minutes.
- Built Public IPAM to automate Salesforce's public IP allocation, reducing IP allocation time from 15 minutes to a few seconds.
- Led the design and implementation of a **publish/notify system** to alert Salesforce customers of changes in the IP allow-list, with a 30 day SLA.

Software Engineer 1 Jun 2023 – Feb 2025

- Optimized Python scripts running in Jenkins for Sitebridge (Salesforce's SDN solution for cross-site connectivity), reducing build times by 30%.
- Improved Sitebridge observability by adding key metrics to Grafana dashboards and leveraging Splunk for reducing debugging time.
- Eliminated redundant AWS Secrets Manager API calls in Sitebridge, cutting down requests by 99% and reducing API throttling.
- Collaborated with senior engineers to **design and build a Golang-based** service hosted on managed EKS for IP address management, reducing manual effort and IP allocation time from 1 day to 15 minutes and improving SLAs.
- Delivered features for Generic IPAM (Salesforce's core IP address management service), boosting efficiency for 4 domain-specific IPAM teams by 10%.

Software Engineering Intern

May 2022 - Jul 2022

- Implemented a Python-based automation for the Egress Gateway team for troubleshooting customer issues related to internet access, reducing manual effort for approximately 20 support tickets per week.
- Automation reduced the number of tickets handled by the on-call engineer by 30%.

EDUCATION

Motilal Nehru National Institute of Technology B.Tech in Computer Science and Engineering - 8.81/10 Prayagraj, UP Jul 2019 – Jun 2023

PROJECTS

LD-GAN Implementation

Apr 2023

 Researched on adversarial attack algorithms and implemented the LD-GAN, with an untargeted white-box attack success rate (ASR) or 93%.

FOCUS AI Feb 2022

- Developed an Android application in Flutter, backed by a ML model in Tensorflow to detect abnormal motion of the handset user and notify emergency contacts, with accuracy of 98%.
- Streamlined the development process to deliver the MVP in 36 hours for Hack36, MNNIT, securing a 2nd place out of 250 teams.

ACHIEVEMENTS

- Special mention, in Salesforce Gen AI Hackathon for integrating AI generated summaries scraped from multiple sources (for example, service logs and metrics) with existing Slack incident management workflow.
- Rated 1782 (Expert) on <u>Codeforces</u> and 2041 (5 stars) on <u>Codechef</u>.
- College rank 2 and overall rank 5 in Hack36 5.0 (A yearly 36 hour hackathon organised by MNNIT) out of 800 participants.
- Avishkar 2021: Awarded with the title of **Mr. Avishkar** for being the best overall performer in the annual flagship techno-management fest of MNNIT (Avishkar).

OPEN SOURCE

• Contributed multiple changes to <u>MLPack</u> (A fast and flexible machine learning library written in C++) and <u>Ensmallen</u> (A header-only numerical optimization library). List of contributions can be found <u>here</u>

SKILLS

- Languages: Golang, Python, C++, Java, Shell Scripting.
- **Database**: MySQL, PostgreSQL.
- CI/CD: Git, Github Actions, Bazel, Spinnaker, Jenkins, Terraform, Helm Charts, Argo CD.
- Backend: AWS, Docker, Kubernetes, Liquibase, Temporal, GraphQL