ANISH GUPTA

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SUMMARY

Result driven **Cloud Engineer** with over 4+ years of experience in facilitating cutting edge engineering solutions with a wide range of **cloud and cyber security** skills. Extensive expertise in large system architecture development and administration. Excellent interpersonal skills, team player and always on the lookout to learn new things. Well poised to contribute corporates to achieve and scale-up growth initiatives.

SKILLS

- **Programming Languages**: Golang, Terraform, C/C++, Python, Java.
- **Platforms**: AWS, Kubernetes, Docker, Linux.
- Experienced in Cyber Security, Cloud Computing and Networking.

WORK EXPERIENCE

Bose Corp. - Cloud Engineer | Boston — Feb 2018 - Jul 2020
Bose Corporation engineers, researches, develops, produces, markets, and retails loudspeakers, electronics, and software for the needs of professional applications worldwide.
- Developed a scalable TCP proxy (in Golang) with TLS support to allow authentication of custom protocols like Pulsar binary protocol and gRPC to be deployed alongside Cilium agents. Developed a Kubernetes operator to configure routes on the proxy using Custom Resource Objects.
- Developed a gitops pipeline (in Golang) to easily deploy and manage multiple Kubernetes clusters.
- Developed a Kubernetes node bootstrapping mechanism that allows for multiple container runtimes, CRIs and CNIs, using Kubeadm, cloudinit, bash scripts and S3 is a persistent store for configuration files.
- Deployed and managed Kubernetes clusters on AWS using Terraform.
- Gained extensive knowledge in operating AWS, Elasticsearch, Keycloak, FreeIPA, Hashicorp Vault, Harbor, etc.
- Consulted with other engineering and operations groups on platform related challenges.
- Participated in on-call rotation as an escalation point for platform related issues.
- Helped develop an Android App that uses the sensors on Bose headphones and frames to assist users achieve healthier posture habits.

Bose Corp. - Cloud Intern | Boston — May 2018 - Aug 2018
- Developed and deployed various security and monitoring components on Bose's Kubernetes clusters.
- Contributed to Ingress Controller Monitor, an open-source Kubernetes controller which monitors TCP/HTTP based services exposed through Kubernetes.
- Developed a Prometheus Exporter (in Golang) to monitor AWS cost and usage information.

GrabOnRent - Senior Software Engineer | Bangalore — Sep 2016 - May 2017
GrabOnRent is a curated product rental marketplace, that lets its customers rent a variety of products and gets them delivered to their doorstep.
- Developed custom geo-fencing algorithms to optimize deliveries.
- Developed the in-house data analytics system using Google BigQuery and MetaBase.
- Developed in-house CRM using Ruby-on-Rails and MongoDB, with integrations to IVRS and customer support system from Zendesk. Deployed the system on Kubernetes in Google Cloud Platform.

Banyan.space - Co-Founder | Bangalore — Dec 2015 - Sep 2016
Banyan.space is a startup focused on solving challenges faced by restaurants and the food technology industry with its product.
- Hired and led a team to develop the platform.
- Designed and developed the point-of-sale system using techniques like source code generation.
- Deployed the system using Docker on AWS.

Symantec Software Solutions - Associate Software Developer | Bangalore — Jan 2015 - Nov 2015
Symantec is the world leader in antivirus and enterprise cyber security solutions.
- Exploited OpenStack/Neutron to allow port-mirroring on OpenVSwitch and Juniper OpenContrail.
- Developed a performance monitor and analyzer for Deep Packet Inspector.
- Developed an anonymizer to desensitize network metadata by anonymizing names, emails, phone numbers, etc.

Narus Networks - Associate Software Developer | Bangalore — Aug 2014 - Dec 2014
Narus Networks was a cyber security company (Branch of Narus, Sunnyvale, California, USA and subsidiary of Boeing USA), now **acquired by Symantec Software Solutions.**
- R&D on various proof of concepts (POCs) for detection of DNS Fast-Flux in botnets, DNS tunnelling and DNS/NTP amplification attacks, using Natural Language Processing and stochastic analysis.
- Network packet inspection, analysis and manipulation, using Python Scapy to generate test data for nSystem.

Narus Networks - Internship | Bangalore — Jan 2014 - July 2014
- Developed a data layer for nSystem which is an HPDA system with data warehousing capabilities and optimized it for network transfers.

EDUCATION
- **2017-19: MS in Computer Engineering** from College of Engineering, **Boston University**.
- **2010-14: B.Tech. in Computer Science Engineering** from **Amrita School of Engineering**, Bengaluru, India.

ACHIEVEMENTS
- **Co-Founded Integra:** Conceived and developed **'Integra'** App that integrates popular cloud storage services in a unique way to store large files across services. Participated in **University Mobile Challenge 2013, GSMA Mobile World Congress, Barcelona, Spain** and was selected among the **Top 10 Innovative Ideas**. **Finalists** in **Microsoft Imagine Cup 2013** and **Intel App Innovation Challenge 2013.**
- **Housing Hackathon 2015**: Used Natural Language Processing to determine the sentiments of various tweets, and generate insights on various topics of interest.
- **National Programming League 2012, NIT Warangal, India:** Among the **Top 150.**

PROJECTS
- **HyperFaaS** is an industrial project undertaken as part of the Cloud Engineering class in BU with Cisco to run serverless jobs on industry-grade edge devices.
- **Dfunc-Serverless** is a ubiquitous serverless platform that supports multiple CPU architectures like x86 and ARM, that can run the python interpreter and docker (github.com/dfunc-serverless)
- **Stock Price Prediction** using machine learning algorithms on publicly available data like Financial news. (github.com/nkanish2002/Stock-Prediction)
- Using Machine learning to **classify malware families** like Zeus, Conficker and Dridex based on network traffic patterns. (github.com/trtiwari/ml_malware_detection)