Thiyagarajan Ravichandran

Software Dev at TCS - DIGITAL

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EXPERIENCE

CitiBank - TCS , Chennai — *Software Dev*

07/2021 - PRESENT

PII Masking Engineer - Dev Lead

Spearheaded the successful onboarding of the PII layer, a crucial component of the organization's data security framework. This layer scanned all running logs, identifying and masking PII data to enhance the privacy and protection of end-client information.

Analyzed the stress test results and observed no significant drop in system latency, reaffirming the PII masking layer's efficiency in maintaining optimal performance even during peak usage.

User Feedback System & Addressing Concerns - Dev Lead

Played a pivotal role in transforming user feedback into actionable insights. Regularly analyzed feedback data to identify recurring patterns and emerging trends, allowing the team to prioritize enhancements effectively. By addressing the concerns improvised the application rating from mere average to best so as the system adheres to resiliency and making it more robust.

L3 Production Dev Support - Dev

Leveraged strong technical acumen to devise innovative solutions for preventing application downtime. This involved implementing proactive measures that safeguarded the system from bleeding out due to failures.

Demonstrated a deep understanding of the system's architecture and components, allowing for quick identification of root causes of failures.

Participated in on-call rotations, responding to urgent issues promptly to maintain high levels of system availability and reliability.

Skills / Interests

Cloud - GCP AWS Azure

Java - Spring | Python

DevOps - Docker,K8s, Ansible , Terraform

Streaming - Spark, Kafka

Deep Learning - Pytorch Reinforcement Learning

AWARDS

Achieved finalist status at IIT Bombay for presenting a groundbreaking project titl "FeelSmart" that harnessed the potential of IoT (Internet of Things) and AR (Augmented Reality). The project showcased an innovative healthcare companion designed to visualize health metrics through 3D augmentation. (01/2019 - 04/2019)

Attained distinction within the top 3% of a global coho comprising 10,000 candidate securing a scholarship from Udacity for demonstrating exceptional technical proficiency in various projects.
(01/2019 - 04/2019).

Amazon , Chennai — *System Dev Engineer - L1 Intern*

01/2021 - 06/2021

Bulk Upload Utility - Dev

Led the design and development of a new and enhanced Bulk Upload Utility system capable of efficiently processing over 1 million records asynchronously, meeting high-volume demands seamlessly.

Introduced a fanning out architecture that revolutionized the processing pipeline. When a job was submitted, the architecture efficiently divided the requests into multiple chunks, enabling parallel processing and significantly reducing processing time.

Implemented a sophisticated polling mechanism to monitor the progress of each job's processing. This allowed for real-time tracking of job completion and timely identification of any issues in the pipeline.

Presidio , Chennai — *Cloud Engineer Intern*

08/2020 - 12/2020

Hiring Helper

Designed a robust AWS architecture to streamline credentials distribution for an internal recruiting team. This innovative solution significantly reduced the manual workload of the Development lead, enabling more efficient and secure access management.

Collaborated closely with the recruiting team to understand their requirements and pain points, ensuring that the AWS architecture aligned seamlessly with their operational needs.

Utilized Terraform to define and provision the necessary infrastructure components, ensuring consistency and reproducibility in the environment setup.

Employed Ansible for configuration management, automating the process of distributing credentials and maintaining access controls across the system.

Integrated Jenkins into the workflow to establish a continuous integration and continuous delivery (CI/CD) pipeline, further enhancing the efficiency of the recruiting team's processes.

Certified With Proficiency

ANDROID DEVELOPER NANODEGREE - UDACITY (05/2017 – 07/2017)

BEC - VANTAGE (06/2018 – 06/2018)

DEEP LEARNING Nanodegree - UDACITY (JAN - MAY 2019)

German - DEUTSCH A1 CERTIFIED (2018- 2019)

DEEP REINFORCEMENT LEARNING Nanodegree - UDACITY (2019

COMPUTER VISION Nanodegree - UDACITY (JAN - 2020)

Hybrid Cloud Engineer Nanodegree - Program From Udacity & Nutanix (JAN - 2020)

Azure Fundamentals - 2022

GCP - Associate Cloud Engineer , 2022

Google Professional Cloud Architect - 2022

Recognitions

Attained a 70% accuracy rate in effectively correlating kith-kin relationships, resulting in the acceptance of Kernel in a Kaggle competition.

Participating in Hacktoberfest for years 2018 - 2022, actively contributing to the OpenSource community and earning notable rewards.

CONFERENCES

PAPER: SKIN CANCER DETECTION

Utilized Recurrent Neural Network

EDUCATION

ST.PAUL MHSS, NEYVELI — SSLC

98% AGGREGATE MARCH 2015

ST.PAUL MHSS, NEYVELI — HSC

95% AGGREGATE MARCH 2017

BIT ERODE – BE (CSE)
9.4 GPA - (2017-2021)

conjunction with various dense layers, commonly referred to as a l Convolutional Neural Network (Inception-V3). The network's pri function is to make predictions ba the input image, determining the presence of specific skin condition

CITATIONS:

[cancer detection using neural networks.doc]

PROJECTS

DUE SETTLEMENT DETAILS - *Android, Java* - *08/2018– 11/2018* [Source]

Developed an Android project aimed at facilitating convenient payment of library dues by students through online transactions. The project seamlessly integrated interactive CRUD (Create, Read, Update, Delete) operations for both the Publisher and Subscriber sides. These operations were managed within the framework of a centralized server using Firebase. This innovative solution streamlined the process of handling library dues while enhancing user experience and efficiency.

TECHTRENDS - *Docker, K8s, CI/CD, Helm* 2021 [Source]

Creating a comprehensive workflow encompassing Docker for application packaging, GitHub Actions for continuous integration (CI), crafting declarative Kubernetes manifests, and leveraging Helm charts for deployment, all centered around sandbox environments.

UDACONNECT - *Flask , SQLAlchemy , Postgresql , Vagrant , Kafka brokers* 2021 [Source]

Refactoring a monolithic architecture into a constellation of microservices. This endeavor involved creating an architecture that hinged on advanced message-passing techniques like gRPC and REST APIs. Moreover, established seamless asynchronous communication via Kafka brokers. To ensure clarity and coherence, I meticulously documented the architecture using OpenAPI standards.

Observability-Dashboard - *Prometheus , Grafana ,Jaeger , Falco events* 2021 [Source]

Establishing and Managing an Observability Stack for Incident Response -

A key aspect of my responsibilities included setting up and maintaining an observability stack to effectively manage incident responses. In this context, engaged with sidecar tracing, incorporating tools like Jaeger and Prometheus. Leveraging PromQL, generated metrics within this framework. To enhance visibility, have constructed an insightful visualization dashboard using Grafana. This comprehensive approach significantly contributed to proactive incident management and system optimization.

Hardening Microservices Environment - *Kube-bench, Grype, Falco monitors, docker-bench* - 2021 [Source]

Addressing paramount security concerns, I focused on fortifying RKE clusters. By employing tools like docker-bench and kube-bench aligned with CIS benchmarks, I ensured robust security measures. In managing security incidents, I adeptly utilized grype and Falco events, bolstering threat detection. The visualization of security data was facilitated through Grafana, enhancing our ability to understand and respond effectively to potential vulnerabilities.