

Geo Johns Antony



OBJECTIVE

Looking for amazing opportunities and vast technical areas to work on. I am a fast learner and is able to adopt to technology quick. I am looking to apply my existing knowledge and experience with new experiences to widen my knowledge along with expanding the company's growth. Always interested in working on cutting Edge technologies and is always up to date with technology.

SKILLS

Languages: Python, R, Bash, C++, C, CMAKE, MAKE, YAML

Frameworks: Kubernetes, Kubeflow. Docker, Hadoop, Spark, Hive, Numpy, Pandas

Tools: Jenkins, Argo, GitLab Runner, GitHub Actions

Cloud Native: Azure cloud, Google Cloud platform, Amazon Cloud

Server: Linux Servers (Ubuntu, CentOS), Nginx, Ha Proxy, Load Balancers

Databases: MongoDB, MySQL, MariaDB, Redis, MinIO

EDUCATION

Degree	Specialization	Year	Institution	Board	Score (CGPA)
AISSE		2012	Mar Thoma Public School	CBSE	8.6
AISSCE	PCM	2014	Bhavans Varuna Vidyalaya	CBSE	7.9
B Tech	Computer Science and Engineering	2018	Christ Faculty of Engineering	Christ University	7.5
M Tech	Big Data Analytics	2020	Vellore Institute Of Technology	Vellore Institute Of Technology	8.7

EXPERIENCE

BIG DATA (INTERN), RELIANCE INDUSTRIES LTD (June '19 – May '20)

In Reliance my main focus of work was on creating Machine Learning Models on applications related to Oil and gas Industry and Machine Learning Operations (MLOPS) on Cloud native platforms. I have quickly adopted to Machine learning environments and cloud native solutions and started working on multiple projects for model development and deployments. I have worked with multiple real case Machine Learning and Data Science Scenarios which included from Data collection till publishing the model into production. Later on I started implementing multiple open source application onto cloud and creating multiple services for integrating these applications. Working on an MNC and contributing a large portion for developing Models and MLOPS platform in the company gave me a great exposure towards modern Machine Learning, Cloud Native applications and DEVOPS.

AIVIDTECHVISION (September '20 – Present)

AIVIDTECHVISION is a startup focusing on creating real time Video Analytics using Deep Learning Framework and OpenCV. It is a small team. My job profile is MLOPS engineer where I design and create scalable MLOPS cloud native architecture. All Development process are being containerized in an automated fashion including various stages in Deep Learning, from Data Source, Data collection, Development, Training and testing in required

environments (GPU in cases) where high resources are required, Hyper tuning and exposing the code as a service in multiple frameworks and I am responsible for this entire process and in its progress. Kubernetes (Development and Management), GitHub API Services, GitHub Actions, GitLab Runner, Azure Platforms, Seldon, TF Serve API mechanisms, OpenCV are used heavily along with integration pieces and other tools.

PROJECTS

MACHINE LEARNING USE CASES:

Petrol Bunk Use Case:

- This use case was based on Live Stream Video Analytics. The main application was to detect the time a car owner spends on the Petrol Bunk based on the CCTV footage. This use case was implemented as a POC.
- It was an Object detection model where each car movements were analyzed. Open CV was used for detection of various points in the frame and to get information

Logistic Model:

- This model involved processing huge amount of logistics data related to data on oil and refinery logistics. The data was continuously getting updated and was streaming and getting stored on a periodic basis.
- Spark Streaming was used for this project, where the data was continuously streamed to the data lake and processed using Spark systems.
- The data was cleaned and a prediction model was created which helped to predicting some of the logistic outcomes. The model used were classification models, which has multi class classification.

Stock Market Prediction with News Analysis and Historical Data

- This project was one of the project in my Masters, where the historical data was used along with the corresponding newspaper article to find the pattern of the Stock movement, through Regression.
- Sentiment analysis was used for finding the score of the Newspaper article, along with the historical data. These were trained under multiple regression model, and the model was tested against the test data.

CLOUD CENTRIC SOLUTIONS:

Our platform was undergoing cloud transition of applications from various traditional services. I have introduced multiple cloud native solutions which are actively running on top of Kubernetes as a Cloud native solution. I was a fresher and have quickly adopted to cloud services. For cloud services both On-premise cloud solutions and Azure cloud were utilized. On-premise cloud solutions were implemented on native servers and had multiple open source applications and tools for services and integration. In Azure Services Azure pipelines, applications and services were integrated.

MLOPS:

MLOPS Services were created, deployed and integrated for the industry. The solution provided integration of multiple services. It included processing, integrating, deploying and monitoring from development till deployment of various machine Learning Models created by developers. Multiple services were attached to a tool called Kubeflow which provided an MLOPS base engine. Multiple services were added, deployed and integrated onto the base engine to create a complete solution. Components ranging from Data collection till Serving Infrastructure consisting of various applications were integrated. Each services were implemented on various clusters and integrated

for creating a single workflow Engine. Proper monitoring and debugging environments were created for the developers and managers for monitoring each services deployed using this platform. Each user required various level of debugging, which was implemented based on their roles and designations. All these services were implemented on top of Kubernetes Infrastructure.

KUBEFLOW:

Kubeflow is an AI ML Ops tool which helps in managing the lifecycle of the Machine Learning Models. From Data collection till API, Kubeflow was used as a major framework and multiple services were integrated onto it. Static Data and Streaming data were handled using the kubeflow framework and used for data processing within a Kubernetes cluster. All model outputs and Pickle files were obtained and stored in a Blob storage. These files were used for exposing the Model as an API.

API SERVICES:

Worked on multiple deployment strategies for Machine Learning Models. The deployment frameworks included Seldon, TFServing, PyTorchServe and Flask. Some use cases were done on these frameworks to submit the models for production. These API services were automated such that when a model was built, modified or retrained the changes in code or data will be reflected onto the active service as needed.

KUBERNETES:

Kubernetes was primarily used to leverage Cloud native solutions. I have learned about Kubernetes, containerized industry solutions and cloud application architectures. I have implemented multiple containerized solutions for application deployments, database storages, application processing and backend processing in containerized Docker solution, which was added onto Kubernetes. Custom resources were created and implemented on top of Kubernetes for application integration and processing.

DEVOPS:

I was part of team which created DevOps workflows which included creating automated pipelines for deploying and monitoring various Micro Services and applications on Kubernetes. Pipelines for multi-language deployments were created and integrated. The languages included R, Python, Java, Node, Angular, etc. For creating and running the deployment, various scripts were written, containerized and ran as a micro service on Kubernetes

AWARDS & HONOURS

Received Star award for outstanding performance in MLOPS workflow creation and model execution from Reliance.

PERSONAL DETAILS

Date of Birth:	20/09/1996
Gender:	Male
Languages Known:	English, Hindi, Malayalam, Tamil
Native:	Kochi, Kerala, India
Passport:	Yes
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