PRAJUAL PILLAI

ML Engineer

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EXPERIENCE

ML Engineer II
Nissan Digital LLP

📅 **September 2023 – Ongoing** 📍 Trivandrum, India

- Developing an in-house **MMM** model with mape of **22%**
- Developed a forecasting model to predict the powetrain mix till 2030
- Part of the team which was **runner up** in Inter-Nissan **AWS Gameday**
- Developed a used car price forecasting poc which was one of the **8** shortlisted ideas(out of **200+**) for Nissan Ideathon/Hackathon.
- Held a session on the usage of DVC for model & data versioning

ML Engineer
Searce Inc.

📅 **July 2021 – September 2023** 📍 Pune, India

Client: Futureproof   July, 2023 – July, 2023

- Developed a CI/CD pipeline for model training pipeline using **DVC**
- Set up the architecture for integrating **DVC** with **VertexAI**
- Developed the model and data versioning module for the pipeline

Client: Searce   March, 2023 – April, 2023

- Developed a Named Entity Recognition model from scratch using **spacy3.1**
- Extracted **9** entities from driving licenses with an accuracy of **93.1%**
- Included an image extraction model using **yolov8** to extract the images
- Extracted photo and signature with accuracies of **95.7%** and **78.3%**
- Built a **FastApi** endpoint to orchestrate the process through an api call

Client: Healthians   Septermber, 2022 – February, 2023

- Developed collaborative filter based recommendation system using **Tensorflow-recommenders** to recommend medical tests to clients
- Trained, tuned & deployed an **80%** accurate model in **AWS Sagemaker**
- Deployment of the same also done using **AWS Lamda** & **AWS ECR**
- Setup **AWS API Gateway** as the trigger for the Lambda deployment
- Performed exploratory analysis of over **6TB** of data in order to identify and aggregate parameters for the model

Client: Flipkart   January – September, 2022

- Worked with Google team to migrate **3PB** of on-prem data to GCS
- Mapped bucket & object policy from **AWS** to **GCS** at scale
- Deployed the **multi-threaded** python code on **GKE** for data migration
- Performed data verification & analysis of the copied objects at **scale**

Product: Recognic   August – December, 2021

- Used **DML** to build models to extract text from custom documents
- Utilised **Vision API** to extract text from generic documents
- Increased performance of existing code by **50%** by optimising the encoding used for the vision calls

EDUCATION

M.Tech, IIT Bombay
Manufacturing	2021
Performance- 8.79	

B.Tech, Kerala University
Mechanical	2017
Performance- 7.45	

Intermediate, St. Fidelis College
I.C.S.E	2013
Performance- 81.3	

ACHIEVEMENTS

Secured **99.22** percentile in Graduate Aptitude Test in Engineering(GATE-19) among **1.67 lakh** candidates

CERTIFICATES

GCP: Professional ML Engineer, Associate Cloud Engineer

AWS: AWS Certified Cloud Practitioner

Coursera: Applied Data Science Capstone, Neural Networks and Deep Learning

TECHNICAL SKILLS

Programming: **Python**, Java, SQL

AWS: S3, **Sagemaker**, ECR, **Lambda**, Glue

GCP: GCS, BigQuery, **Pub/Sub**, Spanner, Cloud Functions, Dataflow, VertexAI, Cloud Scheduler, **Cloud Composer**, **DocAI**

ML Frameworks and Libraries: **Tensorflow**, PyTorch, Darts, Spacy, BERT

EXTRA CURRICULAR

- Represented Mechanical Dept. in the PG inter-department volleyball tournament at IITB.

BLOGS

- Custom Recommendation System
- Performing NER using spacy3.0