

Vedant Mahalle

Data Scientist

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- vedantmahalle21



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A machine learning engineer passionate about cutting-edge technology and solving real-world problems with experience in building end-to-end ML solutions in ranking and vision fields



PROFESSIONAL EXPERIENCE

Data Scientist, Lowe's India

- Working on Generative product retrieval for search using auto regressive approach and using generative models and vector vased dense retrieval.
 - Generative AI, NLP, Information Retrieval, Vector Search
- Implemented a Learning to Rank model to rank products and provide a good experience to users.
 - Lambdarank, Feature Engineering, real time inference
- Researched and implemented state of the art personalized search model to give customers a better experience based on their previous interactions using transformer based architecture and multimodal features (Bert based text embedding, Fine-tuned CLIP based product umage embedding).
 - NLP, CNN, Transformers, Pytorch, ONNX, Information Retrival, Real-time inference
- Engineered a real-time low latency transformer model prediction solution using Nvidia Triton.
 - Nvidia Triton, end to end pipeline
- Built an end-to-end framework to train and deploy new ML-based ranking models
 - GCP, Bigquery, Airflow
- Feature Engineering for personalized and location based signals for LTR model

Student Ixp Intern, Software Engineering, SAP Labs India

• Created a web app with Python to visualize the dependencies of JIRA tickets on a hierarchical level.

Bangalore, India

06/2021 - present

06/2020 – 08/2020 Bangalore, India



Machine Learning and Generative AI

NLP, CNN, Fine tuning LLMs, Prompt Engineering, Speech to text, Data Mining, Feature Engineering, Data Modeling, Supervised Learning, Computer Vision solution classification, object detection, similarity detection, Speech Recognition, and Sentiment

ML frameworks like TensorFlow and PyTorch. Experience of working with Huggingface models

GCP

Have experience with Bigquery, Vertex AI, Dataproc, and other technologies

MLOps and Data Engineering

Skilled in Apache Spark, Data Warehousing, SQL and NoSQL databases, Orchestrating tools like Airflow and Apache Kafka

Experience in Deploying real-time models using Nvidia Triton, Vertex AI, and FastAPI.

Software Engineering

Python, SpringBoot, Linux



PROJECTS

Real Time Road Traffic Monitoring Around different parts of Singapore,

A webapp Using YOLO, opency and streamlit

Fine-tuning LLMs for scientific question answering,

Fine-tuning LLMs with retrieval based approach

Drone Image Semantic Segmentation,

Segment Drone Images into different geographical features

Detecting Covid-19 using Descrete Wavelet Transform and DL techniques from Chest

X-ray images, As part of final year BTech Project

Store Navigator App,

As part of a hackathon developed an visual app for hassle free shopping experience



EDUCATION

B. Tech, Electrical and Electronics Engineering, NIT Calicut

2017 - 2021

Kozhikode, India