MADHUSUDAN KUMAR

Senior Data Scientist

@ kumarmadhusudhan689@gmail.com   ☎ +91 9969072292   ⚙ max12525k   in max12525

SKILLS

Python · Plotly · Pytest · Scikit-learn · Pandas · Tensorflow · PyTorch · Large Language Model · LangChain · FastAPI · MongoDB · VectorDB · MYSQL/PostgreSQL · Git · Pulumi · CI/CD · AWS · Linux · Docker

PROFESSIONAL EXPERIENCE

Senior Data Scientist
SecureThings.ai

📅 Sep 2022 - Ongoing   📍 Pune, India

- Implemented spacy pipeline to extract cybersecurity 50+ labels and 20+ relationships from 2 million plus semi-structured texts to generate knowledge graph with 70+ accuracy.
- Designed and developed LLM pipeline using LangChain to improve labels and relationship extraction by 15% and reducing the time taken by 90%.
- Collaborated with stakeholders to design and create data pipeline, ML pipeline and ML operation on AWS cloud using IaC, reducing the cloud management time by 70%, cloud cost by 50% and product deployment time by 80%.
- Responsible for end-to-end development and execution of backend application, supporting a product featuring 15+ screens and over 50 API integrations.

Senior Data Scientist
Tata Consultancy Services

📅 Apr 2019 - Sep 2022   📍 Mumbai, India

- Led the team of 5 developers for web based ML exploration tool for 40% faster development and deployment of ML usecases in telecom domain.
- Designed ML solution for 10+ usecase from scratch for telecom fault and performance management leading to decrease in 15% reduction in events and enable close loop automation for 25% event.
- Collaborated with clients to reduce the delivery time of mutually agreed milestone by 5%.

Data Scientist

- Proposed, designed & built Python package for integration of 24+ ML use cases across 4+ applications, reducing integration time by 60%.
- Improved predictive maintenance by one day-ahead forecasting of faults and reducing the operation cost by 18% (POC).
- Reduced number of tickets by 6% via automating the identification of alarm's cluster with root alarm (POC).
- Improved network performance by deploying anomaly detection algorithm on MS Azure cloud for network loss and latency, detecting half an hour prior to performance degration (Patent in process).
- Automated and optimised monthly forecasting of claims paid and premium collected, reducing average Mape by 10%.

EDUCATION

M.Tech+B.Tech in Mechanical Engineering
Indian Institute of Technology Bombay

📅 Jul 2013 - Nov 2018   📍 Mumbai, India

- Sucessfully designed process to predict failure time of machines on the network to minimize the operation downtime.
- Proposed and implemented standard template using owl ontology to digitally store properties of machine component from different vendors.
- Sucessfully headed official video channel, leading a team of 6 conveners, creating 60+ videos and covering 35+ events, with nearly 2 million views.
- Researched on pattern formation and created meaningful visualization as an Intern in non-linear dynamics at Chiba University, Japan.