DSN Naveen Kumar

github.com/dsnnaveen9 \$\&\ 9381020149

INTRODUCTION

A dedicated Machine Learning Engineer with over 3 years of experience specializing in supervised and unsupervised learning, deep learning, and NLP. Proven expertise in optimizing model inference and deploying scalable, high-performance solutions to solve real-world AI challenges.

TECHNICAL SKILLS

- Machine Learning & Deep Learning: CNNs, RNNs, Transformers, Model Training & Fine-Tuning, Transfer Learning, TensorFlow, PyTorch.
- Natural Language Processing: Named Entity Recognition, Text Classification, Sentiment Analysis, spaCy, NLTK, Large Language Models (LLMs).
- **Computer Vision:** Image Classification, Object Detection, Image Segmentation, Feature Extraction, OpenCV, PIL.
- Tools & Technologies: Python, SQL, Git, Docker, Kubernetes, AWS, Azure, MLflow, DVC, FastAPI, Flask.

PROFESSIONAL EXPERIENCE

Machine Learning Engineer, Exafluence Global Analytics Private Limited Bangalore, India | Feb 2023 – Present

- Solve complex supervised and unsupervised learning challenges using advanced deep learning techniques.
- Optimize machine learning inference and deploy models efficiently for scalable, highperformance applications.

PROJECTS

Sensor Health & Anomaly Analytics

 Developed an end-to-end system to monitor sensor and gateway health, accurately detecting anomalies for proactive maintenance.

- Designed and implemented robust clustering and anomaly detection algorithms to segment sensor data and flag irregularities.
- Enabled early defect identification and streamlined maintenance through realtime monitoring and actionable insights.
- Delivered a scalable solution that empowers customers to maintain optimal sensor performance.

Named Entity Recognition (NER) System

- Engineered a comprehensive NER pipeline to extract diverse entities from unstructured documents for actionable insights.
- Developed an automated, end-to-end solution using Spacy and advanced NLP models to systematically classify key entities.
- Fine-tuned and rigorously evaluated models to ensure reliable, real-time entity extraction across datasets.
- Provided a robust system that enhances customers decision-making by delivering structured, accurate data.

AI-Powered Database Insights

- Designed an NLP-SQL chatbot to convert natural language queries into precise SQL commands for dynamic database analysis.
- Fine-tuned advanced NLP models and integrated a vector database with a Retrieval-Augmented Generation framework for optimized query processing.
- Developed interactive dashboards and visualizations to present data insights clearly and facilitate strategic decision-making.
- Delivered an intuitive, end-to-end solution that streamlines database interactions and empowers users with actionable intelligence.

EDUCATION

Bachelor of Technology in ECE
JNN College Affiliated to Anna University, Chennai, India | 2017-2021

CERTIFICATIONS

- Deep Learning Specialization, deeplearning.ai (Sep 2022 Dec 2022)
- <u>TensorFlow Developer Specialization</u>, deeplearning.ai (Aug 2022 Oct 2022)