Adeep Sri Narayana

Cork, Ireland | Phone: +353 0892128208 | E: adeepsrinarayana@gmail.com|
https://www.linkedin.com/in/adeepsrinarayana/ | GitHub

Summary

Dedicated Data Scientist with a strong foundation in advanced analytical techniques and a proven track record of implementing AI-powered solutions. Proficient in Python and SQL, with hands-on experience in deep learning, NLP, and large language models. Skilled in critical thinking and problem-solving, with a focus on leveraging AI to drive data-driven decision-making and optimize workflow automation.

Education

- **Masters in Computer Science - Artificial Intelligence**
  University of Galway [Sep 2023 - Sep 2024] Galway, Ireland — **First Class Honors (1:1)**
- **Bachelors in Computer Science - Data Science & AI**
  SRM University [Aug 2018 - Oct 2022] Delhi-NCR, India — **First Class Honors (1:1)**

Skills & Competencies

- **Machine Learning & Deep Learning:** Classification, Regression, **Natural Language Processing** (Text Classification, Token Classification, Language Augmentation Techniques, Machine Translation, LLMs), **Computer Vision** (Object Detection and Tracking, Image Classification, Video classification, OCR, Zero-Shot Learning, **Gen AI** for Synthetic Datasets), **Speech Recognition**: Voice Activity Detection, Whisper
- **Tools and Library:** Pytorch, Tensorflow, keras, Hugging Face, Open-cv, FastAPI, Flask, Docker, FFmpeg, Langchain, Vector databases, Git,MLOps, MLFlow, Wandb, Tensorboard, Stream-lit, GitHub, Docker, Kubernetes.
- **Statistical Methods:** Anomaly detection, Hypothesis testing, Confidence intervals, Dimensionality reduction, operations transformation.
- **Software and Programming Languages:** Python, SQL Database (MySQL, PostgreSQL)
- **Cloud (distributed computing):** Amazon Web Services (AWS), IBM Cloud

Work Experience

Data Analyst

The Sports Rush (TSR) [Jan 2022 - Sep 2022] Gurugram-Delhi, India

- Optimised UFC/MMA content visibility using **NLP,** increasing organic traffic by 35% and reducing bounce rate by 20%.
- **Developed predictive models** using **Python (scikit-learn, TensorFlow)** to forecast article performance based on historical engagement metrics, optimizing content strategy.
- **Implemented real-time dashboards** using exploratory data analysis with **SQL, Tableau, and Python (Matplotlib, Seaborn)** to track audience engagement, keyword trends, and SEO effectiveness.
- **Optimized content recommendation strategies** by implementing **TF-IDF and BERT-based NLP models**, enhancing user engagement and increasing article visibility and work cross- functionally.
- **Deployed a machine learning pipeline** for content classification and keyword ranking predictions using **Flask and AWS Lambda**.

ML Engineer Intern

Smart Knower [Dec 2020 - Jan 2021] Delhi, India (Remote)

- **Developed ML models** for anomaly detection in water quality and consumption data, leveraging supervised and unsupervised learning techniques such as Random Forest, XGBoost, and k-Means clustering.
- Pre-processed IoT sensor data **(Pandas, NumPy**), reducing noise by 20% and improving anomaly detection accuracy**.**
- **Developed interactive dashboards** using **Plotly and Tableau**, integrating APIs for real-time visualization of water efficiency metrics and anomaly detection alerts.
- **Deployed ML models** using **Flask APIs** and **automated MLOps pipeline** using **Docker and CI/CD** to streamline deployment and monitoring of ML models.

Master's Thesis

Trust-Aware Multi-View Learning for Hand Pose Estimation

- Developed a model for hand pose estimation, integrating multiple neural networks to handle uncertainty, achieving improved accuracy by 13% compared to State of the Art.
- Utilised PyTorch for deep learning frameworks and build multiple baseline model.
- Implemented data structuring and advanced data augmentation techniques to enhance model reliability under challenging conditions like noise and occlusion.
- Evaluated multiple factors into a trust metric to prove DL model stability and ethical Explainable AI.
- Engineered a quantized deep learning model using TensorFlow Lite, reducing model size by 60% and inference lat ency by 40% on edge devices with limited computational resources.

Projects

Real-Time Video Filter System on Nvidia Jetson Nano

- Developed real-time video filters leveraging machine learning and **OpenCV** on **Nvidia Jetson Nano**, utilising CUDA for GPU-accelerated processing.
- Optimised multimedia pipelines with **GStreamer**, enhancing system efficiency and performance.
- Integrated advanced vision models like **Haar Cascades** and **PPHumanSeg** for precise segmentation and real-time video enhancements.

Fake News Detection Model - Predicting News Validation

- Built an end-to-end NLP pipeline for fake news detection, including data preprocessing, feature engineering, model development and deployment on AWS Lambda.
- Performed text preprocessing (**TF-IDF**, **Word2Vec)**, feature engineering, model building (**Logistic Regression, Random Forest, BERT**), and model evaluation.
- Optimised data analytical techniques to handle unstructured data, improved model interpretability using **SHAP**, and fine-tuned hyperparameters.
- Demonstrated the application of AI in addressing critical societal challenges related to information integrity.

Certifications

- **Microsoft Technology Associates -** Python Programming **|** Oct 2019 – Dec 2019
- **IBM CLOUD Applications (IBM Watson) |** Dec 2018 - Jan 2022
- **Smart Knower - Machine Learning |** Dec 2020 - Jan 2021
- **iNueron.ai – Full Stack Data Science |** May 2022- June 2023

Volunteering

Public Relations Officer

University of Galway – **AI Society** [Oct 2023 – Sep 2024] Galway, Ireland

- Developed and managed communication strategies to promote AI Society events and initiatives, increasing engagement and awareness among students and faculty.
- Collaborated with AI experts, guest speakers, and industry professionals to organise workshops, webinars, and panel discussions, fostering a strong AI community within the university.
- Maintained the AI Society's social media presence, regularly updating content and interacting with followers to build a strong online presence.

References

- **Available on request.**