Vinay Kumar Tanneeru
AI/ML Engineer

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PROFESSIONAL SUMMARY:

Motivated **AI / ML Engineer** with strong hands-on experience in machine learning, data analysis, and Python-based model development through academic and personal projects. Skilled in data preprocessing, exploratory data analysis, supervised and unsupervised learning, and model evaluation. Proficient in Python, NumPy, Pandas, Scikit-learn, and deep learning frameworks, with a proven ability to translate real-world problems into effective ML solutions. Seeking an entry-level AI/ML role in the USA.

TECHNICAL SKILLS:

Programming: Python, Java, C, NumPy, Pandas
Machine Learning: Regression, Classification, Clustering, Feature Engineering
Deep Learning / NLP: BERT, PyTorch, TensorFlow, Keras
Data & Visualization: EDA, Matplotlib, Seaborn
Tools: Scikit-learn, FastAPI, Streamlit
Cloud & Version Control: AWS (EC2, S3), Git, GitHub

PROJECTS:

Spam SMS Detection Using BERT

- Fine-tuned a **BERT-based NLP classification model** using PyTorch to detect spam SMS messages, achieving **98% overall accuracy**.
- Designed an efficient **text preprocessing and tokenization pipeline** for high-quality model inputs.
- Built a **FastAPI-based inference service** delivering **sub-100ms response times** for real-time predictions.
- Focused on scalable, production-ready deployment patterns for ML inference.

Technologies: PyTorch, BERT, FastAPI, NLP, Python

Brain Stroke Risk Analysis System

- Developed a **production-grade machine learning pipeline** to predict stroke risk by evaluating and comparing **five different ML algorithms**.
- Performed extensive **EDA, feature engineering, and model evaluation** to identify the most reliable predictive model.
- Built an **interactive Streamlit web application** enabling real-time stroke risk assessment from user inputs.
- Applied healthcare-focused ML practices emphasizing interpretability and decision support.

Technologies: Python, Scikit-learn, Streamlit, Machine Learning, Healthcare Analytics

News Legitimacy Verification System

- Implemented a **fake news detection system** using NLP techniques and supervised learning, achieving approximately **92% classification accuracy**.
- Designed a **modular NLP pipeline** for text preprocessing, feature extraction, model training, and evaluation.
- Exposed predictions through a **dedicated inference API**, enabling seamless integration with external applications.
- Emphasized robustness, scalability, and real-world applicability of ML models.

Technologies: Python, Scikit-learn, NLP, Data Science

EDUCATION:

Master of Science in Computer Science
University of Dayton - Dayton, Ohio, USA

Relevant Coursework:

Machine Learning, Artificial Intelligence, Data Mining, Advanced Algorithms, Statistical Learning, Database Systems, Natural Language Processing

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CERTIFICATIONS:

- National Level Project Expo - 2022
- APSSDC Certified AWS Cloud Computing - 2021