KRISHNA VAMSI UPPALA

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POFESSIONAL OVERVIEW:

Experienced Data Analyst and Artificial Intelligence Engineer with a strong background in **Generative AI (Gen AI), Computer Vision, NLP, and Cloud AI solutions, specializing in infrastructure document analysis and map interpretation. Experienced in developing AI-driven search engines, deep learning models, and scalable cloud-based AI solutions. Adept at integrating AI models with platforms like Google Maps, Bluebeam, and deploying AI on AWS, Azure, and GCP. Proven success in optimizing AI workflows, enhancing model accuracy, and improving document/image search efficiency** skills. Passionate about applying AI-driven technologies to enhance personalized marketing and consumer engagement.

SKILLS:

Programming & Query Languages: Python (Scikit-Learn, TensorFlow), **R** (ggplot2, Tidyverse), SQL

Machine Learning & AI: Deep Learning (CNN, RNN, LSTMs), Neural Networks, NLP (Transformers, BERT, GPT Models,LLaMA, Hugging Face), Computer Vision OpenAI API, FastAPI, LangChain, ONNX, Bluebeam

Predictive Modeling: Regression Analysis, Hypothesis Testing, Time-Series Forecasting, Feature Engineering, Anomaly Detection.

Data Visualization: Power BI (DAX, Power Query, Dashboarding)**, Tableau** (Data Storytelling) **Excel**, Google Data Studio

Data Engineering & Big Data: ETL Pipelines (SSIS, Airflow, Hadoop)**, Apache Spark**

Cloud Services: AWS (S3, Lambda, SageMaker, QuickSight), Google GCP (BigQuery, Looker, Spanner,vertex AI),Azure AI **Database & CI/CD Tools:** MySQL, PostgreSQL, MongoDB, DynamoDB, Rest API, Flask, JIRA, Agile, Scrum, GIT, Docker, Kubernetes

Certifications: Google Advanced data analytics**|** Intermediate python **|** Azure AI fundamentals.

WORK EXPERIENCE:

Artificial Intelligence Intern, Springer Capital **USA,** May 2024 – Dec 2024

- Designed and optimized **Generative AI models for document analysis and map interpretation**, enhancing search efficiency by **30%**.
- Developed **deep learning-based infrastructure document recognition system**, reducing manual document processing by **40%**.
- Implemented **computer vision models for satellite and infrastructure image analysis**, improving image recognition accuracy by **25%**.
- Deployed **AI-powered search engine** with NLP capabilities, reducing retrieval time by **35%**.
- Deployed ML models on AWS SageMaker and Azure AI services, improving real-time inference capabilities.

Graduate Student Assistant, NLP Course, UNT **USA,** Jan 2024 – Apr 2024

- Assisted in developing **AI-driven course projects**, mentoring over 80+ students on machine learning concepts.
- Conducted workshops on **computer vision, NLP, and deep learning**, bridging industry applications and academic learning.
- **Conducted workshops on Deep Learning, Large Language Models (LLMs), and Image Recognition.**

ECIL, Junior Analyst Intern **India**, Apr 2021 - Aug 2022

- Analyzed **sensor telemetry data**, optimizing maintenance cycles & **reducing operational costs by 25%**.
- Developed **machine learning models (scikit-learn, TensorFlow)** to detect anomalies in manufacturing, **reducing defects by 15%**.
- Created **SQL-powered reports & dashboards**, enhancing **real-time production monitoring** for managers.
- **Streamlined data pipelines** using **ETL (SSIS, SQL, Pandas)**, increasing data accuracy by **99%**.
- Used tools like **MATLAB**, and **Git** for data processing and collaborative development.

ACADEMIC PROJECTS:

Movie Rating and Revenue Prediction

- Built a predictive model using Random Forest, XGBoost, and Neural Networks in Python to forecast ratings and revenue trends.
- Developed an interactive dashboard to provide real-time insights, helping stakeholders make data-driven decisions.

AI-Powered Personalized Marketing System

- Built a real-time recommendation engine using collaborative filtering and deep learning to optimize customer engagement.
- Utilized NLP and sentiment analysis to analyze customer reviews and adjust marketing strategies dynamically.

Crime Data Analytics & FBI API Integration

- Developed a real-time crime hotspot detection system using AWS S3, EC2, PySpark & QuickSight.
- Integrated FBI API data to build an interactive data visualization tool for law enforcement agencies.

Real-Time Satellite Image Analysis for Urban Planning

- Built Computer Vision models (CNN, OpenCV) to analyze satellite maps for government planning agencies.
- Implemented AI-based anomaly detection for identifying unauthorized land use and infrastructure defects.

Comparative Analysis of Cryptocurrency Returns and Stock Returns

- Built LSTM and SVM models using Python and PyTorch to compare crypto and stock market through predictive analysis.
- Analyzed historical trends to generate actionable investment insights, supporting informed decision-making.

EDUCATION:

University of North Texas (UNT), Denton, TX *Aug 2023 - Dec 2024*

Master of Advanced Data Analytics

Malla Reddy institute of technology and sciences, Hyderabad, India *Aug 2018 - May 2022*

Bachelor of Technology, Electronics and communication engineering