Akash Sukhavasi

reach.akash.sukhavasi@gmail.com | +1 (703) 859-5854
/in/akash-sukhavasi/ | akashsukhavasi.github.io/Portfolio/

Summary

Detail-oriented Machine Learning Engineer with expertise in building and deploying ML models, neural networks, and AI-driven systems. Skilled in leveraging cloud platforms for data analytics, deep learning, and big data solutions to drive business insights and automate complex processes.

Education

George Mason University | Fairfax, VA, USA
Master's — Data Analytics Engineering | December 2024 ***GPA: 3.8 / 4***

GITAM University | Hyderabad, TG, India
Bachelor's — Computer Science & Engineering | June 2021 ***GPA: 3.0 / 4***

Skills

Computational Languages: Python, R, SQL, C, C++, Java, Swift

ML/AI Tools: TensorFlow, Hugging Face Transformers, Neo4J, PyTorch, Keras, Scikit-learn, OpenCV, NLTK, Gensim

Cloud & Big Data: Amazon Web Services (AWS), Azure, Spark, Hadoop, REST API

Visualization: Tableau, Power BI, Matplotlib, Seaborn, Tidyverse

Relevant Courses: Data Mining, Deep Learning, Reinforcement Learning, Computer Vision, NLP, Operations Research

Experience

George Mason University | Fairfax, VA, USA August 2024 - Present
Machine Learning Engineer *Python, LLMs, Neo4J, Graph Databases, PubMed API, GenAI Implementation*

- Developing an AI-driven pipeline using PubMed API to retrieve cancer research articles, converting unstructured data into graph databases with Neo4J.
- Leveraging LLMs to analyze drug efficacy and adverse effects, providing predictive insights for cancer treatments.
- Implementing automated knowledge extraction and harmonization techniques to build knowledge graphs, updating treatment predictions and drug response understanding.

V. V. Technologies | Hyderabad, TG, India May 2017 - Nov 2021
System Integrator, Network Engineer *Customer Fulfillment, Technical Analysis & Implementation*

- Managed customer tech requirements, delivering tailored system integrations and technical solutions.
- Developed network infrastructure for small businesses, improving connectivity and operational efficiency.

Avishkar Software Labs | Hyderabad, TG, India May 2019 - July 2019
Junior iOS Developer *Swift Programming, Codebase Management, iOS App Development*

- Defined iOS development requirements and delivered efficient solutions in collaboration with production teams.
- Partnered with design teams to refine app functionality, maintain codebase, and manage operational tasks.

Projects

Exploring Changes in Economy: Central Banks v Digital Currency January 2024 - May 2024
A Multi-Model Approach *Python, R, ETL, LSTM, Random Forest, Git, Web Development*

- Led AI-driven analysis of central bank digital currency impacts using machine learning models (LSTM, Random Forest) to assess cryptocurrency volatility and price trends.
- Enhanced prediction accuracy for Bitcoin (94.5%) and Ethereum (90.7%) through optimized ML models.
- Delivered results via an interactive web application, allowing real-time data visualization and trend forecasting.

Integrated Analysis of Air Quality August 2023 - November 2023
A Multi-Tool Approach *Python, R, SQL, AWS, Big Data*

- Developed AI-driven pipelines to process and analyze environmental health data, applying machine learning models (Random Forest, SVM) to assess air quality's impact on respiratory health.
- Utilized AWS and Python-based ETL workflows to automate data handling and predictive analysis.

FireFlyer - Automated Early Situational Awareness to Firefighters September 2023 - November 2023
Unmanned Aerial Systems Prototyping *CAD, Prototyping, ML, Project Management, Pitch Incubation*

- Designed an AI-powered prototype for real-time situational awareness in firefighting, using ML for risk prediction and response optimization.
- Achieved a 54% reduction in response time by leveraging real-time data from UAVs and AI models for early detection of fire hazards.
- Awarded Runner-Up in the competition for AI-driven firefighting solutions, securing $500 in prize funding.