Venkata Manideep Patibandla

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SUMMARY

Master's in computer science with 3+ years of experience in **Data Analysis and Machine Learning**. Skilled in **Python, SQL, ML model development, and deployment** using **Flask** or **Streamlit and AWS**. Experienced in **CI/CD workflows, data pipelines, and Tableau dashboards**, passionate about delivering **scalable, data-driven solutions**.

SKILLS

Core Skills: Machine Learning, Deep Learning, Supervised & Unsupervised Learning, Statistical Analysis, Data Science, Product & Business Analytics, MLOps, Cloud Deployment, Big Data (PySpark, Apache Spark).

Technical Skills: Python, NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, Statsmodels, PySpark, SQL (MySQL, BigQuery, Snowflake), Tableau, Microsoft Excel (Advanced), Flask, Streamlit, FastAPI, Docker, DockerHub, AWS, MLflow, Git, GitHub, Google Colab

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EXPERIENCE

One Community Global   New Haven, CT
Data Analyst Intern   July 2025 - September 2025
- Engineered **SQL queries in Snowflake** to extract and transform large datasets, preparing structured data for **machine learning model development**.
- Developed and automated **interactive Tableau dashboards** to visualize patterns and trends, enabling **data-driven feature selection and insights for ML pipelines**.
- Facilitated dataset refinement by integrating metric requirements with advanced **feature engineering** techniques in Python, optimizing datasets for **seamless deployment** into production environments.

Happiest Minds Technology   Bengaluru, India
Data Analyst   July 2021 - December 2023
- Built and maintained **automated data pipelines and Python scripts with CI/CD workflows**, integrating SQL-based datasets to ensure accurate, timely reporting and support enterprise operations.
- Developed **interactive dashboards with Tableau** to provide real-time insights, increasing stakeholder engagement by 25% and enabling **data-driven decision-making**.
- Conducted **A/B testing and statistical analyses using Python (Pandas, NumPy, SciPy)** to evaluate initiatives, support **feature engineering**, and optimize operational strategies, boosting user engagement by 15%.

ION Technology Solutions   Vijayawada, India
Data Analyst Intern   January 2021 - June 2021
- Developed **advanced SQL queries with window functions and CTEs** to extract, transform, and analyze large datasets, streamlining data workflows and improving query accuracy.
- Utilized **Python (NumPy, Pandas)** to clean and manipulate data, enabling precise exploratory analysis that revealed business insights and improved processing efficiency by 20%.

- Performed **statistical analyses**, including hypothesis testing and correlation studies, to uncover key patterns in customer data, driving a 15% increase in campaign effectiveness.

PROJECT

SureStep – AI-Based Fall Detection System | *Computer Vision, Yolov8, Deep Learning, AWS,*
- Engineered a real-time fall detection model using **CNNs and OpenCV** to analyze posture and detect falls from video streams.
- Integrated **AWS Lambda** for alert triggers and **Twilio API** for instant SMS notifications to parents/guardians.
- Deployed the end-to-end system via **Flask + Docker**, achieving **94% detection accuracy** with low-latency edge processing.

AI-Assisted Medical Image Diagnosis | *TensorFlow, CNN, Grad-CAM, AWS S3*
- Built a deep learning pipeline to classify medical scans (X-rays, MRIs) using **ResNet50** with transfer learning.
- Enhanced interpretability via **Grad-CAM** heatmaps to visualize model focus regions and improve clinical trust.
- Tracked model performance using **MLflow** and deployed inference API on **AWS SageMaker** for scalable predictions.

Predictive Maintenance for Industrial Equipment | *Time Series, Random Forest, AWS,CloudWatch*
- Developed predictive models to identify early signs of equipment failure using **sensor time-series data**.
- Automated retraining pipelines with **AWS Step Functions** and model serving using **Lambda & S3 triggers**.
- Improved uptime forecasting accuracy by **30%**, reducing unplanned maintenance costs significantly.

EDUCATION

Master's Degree   Fairfield, Ct
Minor in Computer and Information Science • Sacred Heart University • 3.8   2025
- **Recognized by Upsilon Pi Epsilon (UPE)** for outstanding discipline and academic commitment
- Served as **Teaching Assistant** for **Database and Data Structures**, providing support to faculty and students (4 months).

Bachelor's of Technology   Vizianagaram
- Minor in Information Technology • GMR Institute of Technology • 8.3   2023
- Published a research paper on **A Study on Deep Learning Approaches for Mood-Based Music Endorsement Systems** in Neuroquantology.

CERTIFICATIONS

- Machine Learning: Algorithms in the Real World | Alberta Machine Intelligence Institute

- Google Data Analytics | Google