Nischal Chandur

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Summary

Graduate student with a strong foundation in data modeling, computer vision, and NLP, complemented by skills in software development, cloud computing, and database management. Dedicated to making AI accessible and intuitive by bridging the gap between complex AI systems and everyday users through transparent and ethical data usage. Committed to clear and honest data visualization to foster trust and understanding across both technical and non-technical audiences.

Experience

Data Science Graduate Intern, Ecolab – Naperville, IL   Jun 2024 – Aug 2024
- Enhanced anomaly detection in AI models by performing time series analysis on sensor data (temperature, pH, conductivity) and applying techniques like ARIMA and k-shape clustering to distinguish normal from anomalous patterns in the behavior of cooling towers.
- Developed a synthetic data generation algorithm to create controlled sensor readings, enabling robust model validation and boundary testing, backed by a curated dataset of historical anomalies for comprehensive model assessment.

Machine Learning Engineer, Reworked.ai – Miami, FL   Apr 2024 – May 2024
- Designed a custom hybrid ML model combining Bayesian Decision models and random forest classifiers to predict solar panel installation likelihood, utilizing engineered features such as age, income, roof area, and sunlight exposure.
- Generated actionable leads for solar panel installations by identifying high-potential neighborhoods, optimizing targeting strategies for residential solar adoption based on AI-driven likelihood scores.

Data Scientist, Latlong (ONZE Technologies Pvt. Ltd.) – Bangalore, India   Sep 2022 – Jun 2023
- Built a data extraction tool using Pytesseract OCR to process demographic data from multilingual public documents, integrating results with geo-spatial data for insightful regional analysis.
- Developed a Python and QGIS-based visualization tool enabling companies to identify underperforming areas and competitor-dominated regions, delivering actionable insights that boosted operational efficiency and profitability across sectors like finance and automotive.

Projects

Sign Language Recognition & Translation – University of Maryland, College Park   Mar 2024 - May 2024

Developed a sign language recognition and translation platform utilizing a custom CNN that achieved 96% validation accuracy, allowing users to upload gesture images and input text for fingerspelling, all integrated into a Flask web application deployed globally via ngrok. github.com/chandurnischal/sign-language

NBA Prediction & Analysis Model – University of Maryland, College Park   Aug 2023 - Dec 2023

Created an end-to-end data science pipeline that predicts NBA game outcomes using historical data, feature engineering with advanced metrics, and a Random Forest Classifier with 75% validation accuracy, all presented through a Flask web application displaying daily match statistics and win probabilities. github.com/chandurnischal/NBA-prediction-model

Technologies

Machine Learning: scikit-learn | Tensorflow/Keras | SpaCy | NLTK | Pytesseract | OpenCV | Plotly | Matplotlib/Seaborn
Languages: Python | R | MATLAB | Go | C/C++ | HTML/CSS | JavaScript
Databases & Big Data: PostgreSQL | MySQL | MongoDB | Snowflake | Kafka
Cloud Computing & Dev Ops: Amazon Web Services (AWS) | Microsoft Azure | Databricks | Docker | Git/GitHub
Web Development: React.js | Flask | Django | ngrok | Gin | Fiber

Education

University of Maryland, College Park, MD, MS in Data Science   Aug 2023 – May 2025
Coursework: Natural Language Processing | Computer Vision | Data Representation & Modeling | Communication in Data Science & Analytics

PES University, Bangalore, India, B.Tech in Electronics & Communication Engineering   Aug 2018 – May 2022
Coursework: Engineering Mathematics | Linear Algebra | Random Processes | Artificial Neural Networks | Pattern Classification