Nischal Chandur

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Technical Skills

Machine Learning & AI: TensorFlow | Keras | Scikit-learn | PyTorch | HuggingFace | OpenCV | LangChain | SpaCy | NLTK

 $\textbf{Programming Languages:} \ \ \text{Python} \ | \ \ \text{R} \ | \ \ \text{MATLAB} \ | \ \ \text{C/C++} \ | \ \ \text{Go} \ | \ \ \text{JavaScript} \ | \ \ \text{HTML/CSS}$

Databases & Big Data: PostgreSQL | MySQL | MongoDB | Snowflake | Apache Kafka

Cloud Computing & Dev Ops: Amazon Web Services (AWS) | Microsoft Azure | Databricks | Docker | Git/GitHub

Other Tools: PyTesseract | FAISS | Streamlit | Flask | Gin | Fiber

Professional Experience

Data Science Graduate Intern, Ecolab - Naperville, IL, USA

Jun 2024 - Aug 2024

- Enhanced anomaly detection models for cooling towers by integrating ARIMA and k-shape clustering, boosting precision by 32%, leading to proactive issue identification and reduced maintenance costs.
- *Developed a high-throughput synthetic data generation algorithm* in Python, simulating 10,000+ sensor readings per second to create realistic operational test cases, strengthening model robustness.

Machine Learning Engineer, Reworked.ai – Miami, FL, USA

Apr 2024 - May 2024

- Designed a hybrid ML pipeline combining Bayesian decision models and ensemble learning to predict solar panel installation likelihood, optimizing lead targeting and reducing marketing costs.
- *Implemented a data-driven lead acquisition strategy* using neighborhood-specific scoring, *improving conversion rates by 17%*, increasing sales efficiency, and refining customer segmentation.

Data Scientist, Latlong (ONZE Technologies Pvt. Ltd.) - Bengaluru, KA, India

Sep 2022 - Jun 2023

- Automated multilingual data extraction using PyTesseract OCR, enabling demographic analytics across multiple Indian regions, improving decision-making for location-based insights.
- Developed a Python-QGIS visualization platform to identify underperforming geographic areas, empowering financial and automotive firms to optimize resource allocation.
- Integrated geo-spatial intelligence into key business performance indicators, leading to strategic expansions for clients.

Academic Projects

Lorekeeper – University of Maryland, College Park

Aug 2024 - Dec 2024

- Developed a Retrieval-Augmented Generation (RAG) model using LangChain, HuggingFace, and FAISS, improving text retrieval accuracy by 28% for large-scale literary corpora.
- Built an interactive Streamlit interface, enabling seamless user queries and real-time knowledge retrieval, enhancing accessibility for literary research. github.com/chandurnischal/lorekeeper

Sign Language Recognition & Translation – University of Maryland, College Park

Mar 2024 - May 2024

- Engineered a real-time sign language recognition model using a custom CNN, achieving 96% accuracy, improving accessibility.
- Designed a Flask-based web app, enabling global access to gesture recognition and text-based fingerspelling translation for real-time communication. github.com/chandurnischal/sign-language

NBA Prediction & Analysis Model – University of Maryland, College Park

Aug 2023 - Dec 2023

- Built a predictive analytics pipeline leveraging ensemble learning, achieving 75% accuracy in forecasting NBA game outcomes for data-driven decision-making.
- Developed a real-time Flask dashboard, visualizing key match statistics and game insights, increasing engagement for sports analysts and fans. github.com/chandurnischal/NBA-prediction-model

Education

University of Maryland, College Park, MD, USA

Aug 2023 - May 2025

Master of Science in Data Science

Coursework: Natural Language Processing | Computer Vision | Data Representation & Modeling | Communication in Data Science & Analytics

PES University, Bengaluru, KA, India

Aug 2018 - May 2022

Bachelor of Technology in Electronics & Communication Engineering

Coursework: Engineering Mathematics | Linear Algebra | Random Processes | Artificial Neural Networks | Pattern Classification