

Nischal Chandur

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Technical Skills

Machine Learning & AI: TensorFlow | Keras | Scikit-learn | PyTorch | HuggingFace | OpenCV | LangChain | SpaCy | NLTK
Programming Languages: Python | R | MATLAB | C/C++ | Go | JavaScript | 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

- Leveraged *ARIMA* and *k-shape clustering* to enhance anomaly detection models for cooling towers, achieving a 32% improvement in precision and enabling targeted operational diagnostics.
- Developed a *synthetic data generation algorithm* using Python, producing over 10,000 sensor readings per second to simulate diverse operational scenarios for robust model validation.

Machine Learning Engineer, Reworked.ai – Miami, FL, USA Apr 2024 – May 2024

- Designed a hybrid ML pipeline integrating *Bayesian decision models* and *ensemble learning* to forecast solar panel installation likelihood, optimizing deployment strategies with high precision.
- Improved lead acquisition by 17% through tailored neighborhood-specific scoring, enabling data-driven marketing campaigns with measurable return on investment.

Data Scientist, Latlong (ONZE Technologies Pvt. Ltd.) – Bengaluru, KA, India Sep 2022 – Jun 2023

- Deployed *PyTesseract* and OCR techniques for multilingual data extraction, supporting demographic analytics across several regions in India.
- Built a Python-QGIS visualization platform for identifying underperforming areas, delivering strategic insights to finance and automotive industries.
- Enhanced decision-making processes by integrating geo-spatial insights into key business performance indicators.

Academic Projects

Lorekeeper – University of Maryland, College Park Aug 2024 - Dec 2024

- Engineered a Retrieval-Augmented Generation (RAG) model using *LangChain*, *HuggingFace*, and *FAISS* to process extensive text corpora from *The Lord of the Rings* and *The Hobbit*.
- Deployed an interactive Streamlit-based interface, enabling intuitive user queries, context-aware responses, and enhanced model transparency. github.com/chandurnischal/lorekeeper

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

- Designed a custom *Convolutional Neural Network (CNN)* achieving 96% validation accuracy for real-time sign language translation.
- Deployed a *Flask web application* providing global access to gesture recognition and text-based fingerspelling translation. github.com/chandurnischal/sign-language

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

- Built an end-to-end prediction pipeline employing *ensemble learning methods*, achieving 75% accuracy in forecasting NBA game outcomes.
- Created a Flask-based dashboard for real-time display of match statistics and probabilistic game insights. 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