AKHIL KAMBHATLA

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EDUCATION

University of Maryland, College Park Aug 2025 – May 2027
Master of Science in Data Science – 3.9/4

Chaitanya Bharathi Institute of Technology, Hyderabad, India Nov 2021 - May 2025
Bachelor of Engineering, Artificial Intelligence and Data Science – 8.94/10

SKILLS

- **Programming** : Python, R, SQL, MATLAB, JavaScript, React.js
- **Data Science and Machine Learning**: Scikit-learn, PyTorch, TensorFlow, Hugging Face Transformers, NLP, Numpy, Pandas, Statistical Modeling, Spacy, Feature Engineering, Time Series Forecasting (ARIMA, TBATS), Data Pipeline Design & Development, Data Engineering, Generative AI (LLMs, RAG Production Systems), Web Scraping (Selenium, BeautifulSoup), ML/DL Model Building
- **Frameworks and Tools** : FastAPI, Spark, Docker, Kubernetes, GitHub, Jupyter Notebook, RStudio
- **Cloud and Databases** : AWS (Lambda, S3, Bedrock, Sagemaker), MongoDB, Databricks, SQLite.
- **Visualization and Business Intelligence**: Excel, Power BI, Tableau, Matplotlib, Seaborn, Plotly, Folium

PROFESSIONAL EXPERIENCE

Synkrit AI Tech Pvt Ltd. Hyderabad, India
Python Engineer April 2025 – June 2025

- Engineered and tested core backend features for a faceless AI video generation app utilizing FastAPI and Swagger UI; developed the primary logic to maintain character consistency and executed custom voice/video styles
- Drove backend feature implementation by building RESTful endpoints for model and audio style retrieval, debugging Redis configurations, and implementing fail-safes; pushed stable code to GitHub for production, cutting audio–subtitle sync errors and reducing deployment rollbacks

Infosys Springboard Internship 5.0 Hyderabad, India
AI Engineer Intern Oct 2024 - Dec 2024

- Developed a real-time emotion and sentiment analysis system with DeepFace and Wav2Vec2 that achieved 91% accuracy, that was focused into a mental health monitoring tool for therapists
- Operated within an Agile environment to consistently meet project deadlines by delivering results in structured, incremental phases and adapting to evolving requirements

Rinex Internship Hyderabad, India
Artificial Intelligence Intern Jan 2024 - Mar 2024

- Built a weather classifier adopting Random Forests with optimized feature selection, raising accuracy from 79% to 93% through proactive troubleshooting and iterative improvements
- Refined models through hyperparameter tuning and feature importance analysis to overcome overfitting issues and documented each milestone using GitHub Markdown for knowledge transfer

EdSpread Hyderabad, India
Full Stack Developer Intern Mar 2023 - May 2023

- Implemented a Student Performance Dashboard employing the MERN stack, integrating MongoDB, Express/Node, and React
- Tested and verified dashboard functionality with mock datasets, ensuring accurate data rendering and reliable performance

ACADEMIC PROJECTS

Enhancing Blind Image Quality Scores using Multi-Scale Feature Extraction

- Identified limitations in existing BIQA models and applied a 3-layered Laplacian Pyramid Networks as a novel approach for improved image diagnosis
- Applied Simple CNNs to analyze and predict BIQA scores using benchmarked datasets, collaborated with teammates to refine the experimental setup, and achieved a PCC value of 93.14%

Optimizing Sales Predictions in Superstore Retail: A Comparative Study of ARIMA and TBATS Models

- Conducted a comparative analysis of ARIMA and TBATS models for SuperStore Sales forecasting, and worked in a team setting to manage data pipelines for preprocessing, model training, and evaluation
- Gained practical experience in exploratory data analysis, time series analysis, model training, and evaluating performance metrics

Email-Spam Classification using Long-Short Term Memory Model

- Implemented an LSTM based email spam classification system and obtained an accuracy of 94% in detecting spam emails

HACKATHONS

Smart India Hackathon

- Created a website for Medicinal Leaf Identification using Machine Learning
- Led a team of 6 in designing a CNN model for leaf classification, achieving an accuracy of 96%

PUBLICATIONS

8th International Conference on Inventive Computation Technologies April 2025

- Paper Title: "Enhancing Blind Image Quality Scores using Multi-Scale Feature Extraction"

Cybernetics, Human Cognition, and Machine Learning in Communicative Applications, Springer January 2025

- Paper Title: "Enhancing Precision Agriculture with Machine Learning and Image Processing: A Comparative Evaluation of YOLO and RCNN for Weed Identification and Detection"