Aditya Sanjay Mhaske

admhaske@iu.edu | adityamhaske.com | Linkedin/adityamhaske | Github

Education

Indiana University Bloomington — Bloomington, IN, USA
Master of Science in **Data Science** — Aug 2022 – May 2024
- **Coursework:** Machine Learning, Statistics, Probability, AI, Big Data, Data Visualization and Econometrics

MIT World Peace University — Pune, India
Bachelor of Technology in **Computer Science** — Jul 2018 – Jun 2022
- **Coursework:** Data Warehousing Data Management, Data Mining, Project Management, and Software Design

Skills

Languages : Python (PySpark, PyTorch, SciPy), R, SQL (MySQL, PostgreSQL), Matlab, HTML, CSS, MongoDB
Big Data : PowerBI, Tableau, Excel, Azure, AWS (EC2, S3, RDS), SAS, Git, Google Analytics, Hadoop
MLOps : Docker, FastAPI, Flask, Transformers, ETL, Snowflake, REST, Hugging Face

Work Experience

Data Scientist Intern | Twin Cities Innovation Alliance — Sep 2023 – Dec 2023
- Designed **A/B tests and Hypothesis tests**, employing SQL for data preparation and **Statistical Modeling** like Segmentation and Regression analysis to assess trends and evaluate the effects of changes on website optimization.
- Improved client's recommendation system by blending collaborative and content-based filtering techniques, utilizing user preference and behavior data, leading to a notable **20%** surge in user engagement acquisition.

Data Scientist | Kelley School of Business — Dec 2022 – Aug 2023
- Implemented **Llama 2** with meta 7B and 13B in an **LLM** Model to analyze Customer Satisfaction and Brand Equity for large-size US companies, enabling prediction of binary classification percentages for two categories.
- Leveraged BERT **NLP** algorithm to analyze a large-scale dataset of **100+ million rows and 40 columns** and attained testing accuracy of 91% in classifying topics and sentiments of political campaigning data.
- Created a predictive Cross-Classified Multilevel model, boosting decision-making and performance by 35% through data analysis and pattern identification.

Data Engineer | Moonplexus Private Limited — May 2021 – Aug 2022
- Led the AWS team for implementation of **AWS EC2 and Amazon RDS**, resulting in increased web application performance, streamlined database management, and enhanced efficiency in image gathering and analysis.
- Developed machine learning models for skin lesion classification using TensorFlow and CNN, **achieving 89%** accuracy.
- Implemented production-ready machine learning model with **FastAPI, Docker, and Flask**, resulting in streamlined deployment process, increased scalability, and improved accessibility for users.
- Prioritized SQL integration to automate tasks, and optimize data retrieval, achieving a 40% reduction in execution time.

Machine Learning Intern | Indian Institute of Technology — Oct 2020 – Apr 2021
- Employed Python and C++ to analyze DBSCAN and MBSCAN algorithms to analyze distance-based outlier mining. Improved computational **speed by 30% and precision by 20%** in clustering algorithms.
- Utilized Excel for data preprocessing, Data Modeling for feature engineering, and Tableau for visualization, enhancing the understanding and presentation of insights derived from the analysis of results.

Academic Projects

Stock Prediction on Deutsche Borse using AWS | Python, AWS, Forecasting — Jan 2023 – Mar 2023
- Utilized Python to create and apply ARCH and GARCH models for EUR currency start price forecasting.
- Employed AWS EMR and Sagemaker to seamlessly consolidate and process a vast dataset of over 1000 CSV files, totaling 45.5 million data points stored in an S3 bucket.

Multi-modal for Depression Analysis | Python, NLP, Feature Engineering — Jun 2022 – Dec 2022
- Developed a deep-learning model to extract behavioral features from facial expression, EEG signals, and speech.
- Resulted in a 90% accuracy rate, and model captured a 15-18% higher accuracy rate than the existing system.
- **IEEE Publication**: Electroencephalogram Based Depression Detection Using Ensemble Approach (ICAISC).

Achievements

- Achieved 1st rank for project design completion in Dubai with Etisalat, while successfully leading a team of 10. [2022]
- Secured the 8th position and led team in the AGBI Health-Tech Challenge, among 4,000 participating teams. [2021]
- **IEEE Publication:** Smart Glasses to Assist Monocular Vision to Estimate Depth using Deep Learning. [2021]