Adarsh Thoke

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EDUCATION

University of Colorado Denver, Master of Science in Computer Science (MS Project Track) (3.4/4.0) *Expected May '24*

Relevant Coursework: Machine Learning, Computer Vision, Big Data Science, Artificial Intelligence, Deep Learning, Advance Computer Architecture, Operating Systems and Algorithms.

University of Mumbai, Bachelor of Engineering in Information Technology (3.26/4) *2016 - 2020*

SKILLS

Programming Languages:	Python, Java, SQL, HTML, CSS
Data Management:	MongoDB, Redis, Kafka, Apache Spark, Apache Hive
Technologies/Tools:	Pandas, NumPy, SpringBoot, Azure, CI/CD pipeline, Git (Version Control), Matplotlib, Snowflake, Docker TensorFlow, Natural Language Processing, Docker, A/B & hypothesis testing.

EXPERIENCE

Research Assistant *June '23 - Present*

College of Engineering, Design and Computing, University of Colorado *Denver, CO*

Supervisor: Prof. Liang He

- Leading ARADISS (Adaptive Real-time Anomaly Detection and Identification for Space Systems), a **NASA** funded project focused on categorizing anomalies in battery-based vehicles.
- Collaborating with **business stakeholders** Global Technology Connection, Inc. to analyze large amounts of data to discover complex patterns and employ a data-driven approach.
- Designed an algorithm for differentiating Dependent (Cascaded) and Independent (Non-Cascaded) anomalies using insights and ML XGBoost model, extracted new features using statistical data analysis. Currently, in the testing phase, the model demonstrates an accuracy ranging from 92% to 96%.
- Applying data visualization and manipulation techniques for intuitive communication and presentations.

Software Engineer *Nov '20 - July '22*

Reliance Jio Platforms Ltd *Navi Mumbai, India*

- **Collaborated** with the cross-functional Enterprise team at Jio, developed new features and crafted RESTful web services for the Customer Management Portal for sending promotional templates to more than 400M+ users. Provided development Support for the infrastructure and Knowledge Management System.
- Created stream access to fetch keys from WhatsApp Business API after uploading Jio promotional template from scratch and **deployed** on the server. Implemented Kafka which optimizes user query distribution and Redis to make the system scalable, overall improving the performance of the system. Additionally, prepared comprehensive **technical documentation** for the entire system.
- Worked with the Customer Experience Team to improve the product analytics and experience based on **consumer behavior** of the live chat functionality of JioCare on WhatsApp, HelloJio, and JioCare in MyJio with a user-centric approach.
- Defined product-specific **KPIs**, tested 2000+ queries, and addressed critical blockers. Formulated **business strategies**, boosting customer acquisition by up to 8% in three months.

PROJECTS

Student Performance Indicator *Data Science '24*

- Trained various models, including Decision Tree, K-nearest neighbors, boosting, and bagging models, for the analysis of the project.
- Performed exploratory data analysis (EDA), data transformation, design production pipelines, and deployed on Microsoft Azure.
- Selected the optimal model by using R-squared (R2) metrics, which effectively capture the variability in student performance data. (GitHub)

Hand Gesture Control System *Computer Vision '23*

- Created a Real-Time system using OpenCV, and Mediapipe for efficient hand-tracking video frame capture from a webcam.
- The system accurately followed hand gestures to execute commands, delivering improved responsiveness.(GitHub)

Categorizes reviews into 1 or 5 stars based on the text content. *NLP '23*

- Implemented text tokenization techniques and Multinomial Naive Bayes Classification Algorithm to preprocess textual data for rating hotels.
- Results show a precision value of 92% and a recall value of 93%. (GitHub)

Smart Vehicle Assistance System *Deep Learning '23*

- Developed an **end-to-end** Traffic Signal Recognition Web Application, incorporating a Keras Convolutional Neural Network model.
- Using Python and Flask for the backend, and ReactJs for a responsive frontend, ensuring seamless interaction with the model.
- Attained correct decisions with an average accuracy of 95%, highlighting the system's effectiveness in handling unstructured data.(GitHub)

Dynamic Pricing of food products to reduce wastage *Machine Learning '22*

- Implemented pricing reduction strategy using defined parameters like expiry dates to enhance sales and minimize discarded inventory.
- Generated a dataset with 1000+ different food products, performed data mining, and constructed a predictive model using supervised learning (Linear Regression). Demonstrating proficiency in Python, Jupyter, and **sci-kit learn**. (GitHub)

CERTIFICATES AND EXTRA-CURRICULAR ACTIVITIES

- Udmey: Python for Data Science and Machine Learning Bootcamp. *2023*
- Letter of Appreciation from the Department Head for the Code Refactoring Seminar. *2021*
- Won 50,000 INR Prize and Certificate of Appreciation from Navi Mumbai Municipal Corporation and United Nations Development Program for the development of a snake bot designed for utilization in natural calamities *2019*
- Organized TEDxDYPatilUniversity event, "EVENTS HEAD" for the Annual College Cultural Fest. *2017-2019*