

ADARSH THOKE

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EDUCATION

University of Colorado Denver, Master of Computer Science (MS Project Track) (3.2/4.0) *Expected Spring '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, SQL, Java.
Data Management	BigQuery, MongoDB, Redis, Kafka.
Technologies/Frameworks:	Pandas, NumPy, Sklearn & Scikit, SpringBoot, Azure, CI/CD Pipelines, Git Version Control, Matplotlib, Web Services.
Soft Skills	Leadership, Collaboration, Communication, and Management.

EXPERIENCE

Research Assistant *June '23 - Present*
College of Engineering, Design and Computing, University of Colorado.
Supervisor: Prof. [Liang He](#) *Denver, CO*

- Presently working on ARADISS (Adaptive Real-time Anomaly Detection and Identification for Space Systems) in collaboration with Global Technology Connection, Inc. Funded by **NASA**.
- Using a data driven approach and quantitative statistics designed an algorithm differentiates two anomaly categories Dependent (Cascaded) and Independent (Non-Cascaded). Leveraged machine learning techniques for precise anomaly detection. As of now in the testing phase, its accuracy ranges from 92% to 96%. Developing real-time systems capable of processing streaming data. Applied data visualization and data manipulation techniques for intuitive representation and interpretation of complex patterns.

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 APIs for the Customer Management Portal for sending promotional templates to more than 400M plus users. Provided development Support for Knowledge Management System.
- Created stream access to fetch keys from WhatsApp(Meta) server after uploading Jio promotional Template from scratch and deployed it. 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 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. Implemented business strategies, boosting customer acquisition by up to 8% in three months.

PROJECTS

Hand Gesture Control System *Computer Vision '23*
Used OpenCV for real-time video frame capture from a webcam, implementing image processing functions for preprocessing. Integrated Mediapipe for hand tracking, leveraging pre-trained models to extract 3D hand landmarks. Used Euclidean distance calculations between hand landmarks, enhancing finger point analysis. [\(Have a Look\)](#)

Categorizes reviews into 1 or 5 stars based on the text content. *NLP '23*
Using Yelp dataset, did data modeling and tokenized the text. With the use of the Multinomial Naive Bayes Classification Algorithm categorizes the content, results indicate a precision value of 92% and a recall value of 93%.

Smart Vehicle Assistance System *Deep Learning '23*
Develop a complete end-to-end Web App for Traffic Signal recognition, employing a Convolutional Neural Network model via Keras. Backend powered by Python, and Flask, enabling model interaction. Leveraged ReactJs for a responsive frontend. [\(Have a Look\)](#)

Dynamic Pricing of food products to reduce wastage *Machine Learning '22*
Implemented dynamic price adjustments based on expiry dates to boost sales and curtail discarded inventory. Create a dataset entirely from scratch and a predictive model using supervised learning specifically Linear Regression. Leveraged Python, Jupyter, and standard sci-kit learn libraries for seamless data manipulation, modeling, and analysis. [\(Have a Look\)](#)

Chain Reaction Game *Artificial Intelligence '22*
Developed an AI Bot for a chain reaction game, using a minimax algorithm with alpha-beta pruning and Pygame Libraries. Bot showcased an 86% win rate against human players.

Human Detector Robot- Drishti*2018 - 2019*

Developed a prototype of a snake bot designed to locate humans under natural calamity. The technology used Arduino UNO and C. Won 50,000 INR Prize by the United Nations Development Program and Navi Mumbai Municipal Corporation.

CERTIFICATES AND EXTRA-CURRICULAR ACTIVITIES

Letter of Appreciation from the Department Head for the Code Refactoring Seminar.

2021

Certificate of Appreciation from Navi Mumbai Municipal Corporation and UNDP.

2019

Organize TEDxDYPatilUniversity event, "EVENTS HEAD" for the Annual College Cultural Fest.

2017-2019