

Raghav Upadhyay

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Profile

A motivated data science enthusiast with strong foundations in machine learning, data analysis, and statistical methods, seeking real-world, data-driven projects to enhance Python, SQL, and machine learning skills.

Education

- **Master of Science in Data Science**
University of Arizona
Sept 2024 – Present
GPA: 3.67 / 4.0
- **Bachelor of Technology (B.Tech) in Computer Science**
SRM University, Specialization in Software Engineering
Sept 2020 – May 2024
GPA: 3.4 / 4.0

Experience

Research Project – NIOT (National Institute of Ocean Technology)

Funded by ISRO and NIOT

Project Description: During my final year of B.Tech, I contributed to a life simulation project for the Matsya 6000, a deep-sea exploration vehicle developed as part of India's Samudrayaan mission. With a project budget of \$40 million, the mission aimed to facilitate rare mineral exploration at depths of up to 6,000 meters. My responsibilities included predicting oxygen levels, CO₂ emissions, humidity, and cabin pressure in the submarine environment. Using machine learning techniques, I analyzed project data and applied various algorithms, ultimately finding that the Random Forest model provided the best results, achieving an accuracy of 94%.

Projects

Hate Speech Detection Model [🔗](#)

Built a machine learning model to classify hate speech in online text using a Kaggle dataset, to improve content moderation on social media. **Tools:** Python, Scikit-learn, NLP.

Grocery Shopping Assistant [🔗](#)

Developed a ReAct agent for a virtual store that locates items, adapts to inventory changes, and suggests substitutes when needed, showcasing reinforcement learning and NLP. **Tools:** Python, OpenAI Gym, NLP.

Chatbox [🔗](#)

Designed a chatbox with real-time communication and natural language understanding to enhance user engagement and streamline responses. **Tools:** Python, Flask, NLP.

Skills

Programming Languages: Python, SQL, R, HTML, CSS, C++

Data Analysis Visualization: Pandas, NumPy, Matplotlib, Tidyverse, Tableau, Power BI, ggplot2

Machine Learning AI: Scikit-learn, PyTorch, Natural Language Processing (NLP)