HIMANSHU BADERA

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EDUCATION

University of Houston, USA	**May 2023**

*Master of Science in Data Science **(50% Merit Scholarship)***

Medi-Caps University, India	**May 2020**

Bachelor of Science in Civil Engineering with a minor in Computational Data Science and Machine Learning

SKILLS

- **Programming Languages:** Python, MySQL, Tableau, Microsoft Excel
- **Big Data & Machine Learning:** AWS, Hadoop, Docker, Jupyter, Git, Python (Pandas, Numpy, Matplotlib, TensorFlow, Keras, Scikit-learn)
- **Data Science & Miscellaneous Skills:** Regression, Classification, EDA, Visualization, Feature Engineering, Clustering, Dimensionality Reduction, Time Series Forecasting, Anomaly Detection, A/B Testing, Hypothesis Testing, Deep Learning, NLP, Datajoint, GPU
- **Soft Skills:** Leadership, Management, Collaboration, Team Building, Customer & Stakeholder relation

RESEARCH WORK

University of Houston, USA (GitHub) — **August 2021 - May 2022**

Graduate Research Assistant

- Scrutinizing blind source separation technique on electrophysiological data at **30kHz** so that the activities of neurons are extracted.
- Leveraging electrophysiological data in primates to examine single and multi-neuron activity using **Datajoint** on Linux operating system.
- Working on **deep learning** based algorithms to get implemented in the laboratory to get neural network outputs using GPUs.

WORK EXPERIENCE

Data Glacier — **May 2022 - August 2022**

Data Science Intern

- Collaborated with diverse cross-functional teams to analyze business requirements and design strategy storyboards.
- Demonstrated customer **churn ratio** using **K-means clustering** with an accuracy of **90%** and communicate with stakeholders.
- Presented the findings, and suggested ways to reduce the **churn rate** to the CEO and team of the organization.

Rajyash Technologies, India — **January 2020 - July 2021**

Data Scientist

- Increased **22%** customer response using **Time Series model** by identifying users' potential interest and running marketing campaigns.
- Developed a data pipeline on **Spark** for customer segmentation to provide strategic marketing guidance.
- Performed data extraction and cleaning using **SQL**, and built machine learning models using **Python**.
- Demonstrated the detailed value proposition and strategy to the senior leadership and end clients.

M.P. Police Housing & Infrastructure Development Corporation Ltd., India — **May 2019 - August 2019**

Data Science Research Intern

- Increased **60%** operational efficiency by automating employee performance monitoring process, acquiring data from multiple sources.
- Determined faults on pavements and other concrete structures using three different **CNN** models with **82%** accuracy.

Mehta & Associates, India — **May 2018 - August 2018**

Data Science Intern

- Analyzed large complex datasets, and visualized contamination of a metropolitan area by pollution severity.
- Strategized new ways of reducing land pollution under the project – Clean India Mission funded by the Govt. of India.

RECENT PROJECTS

Seismic Fault Detection (GitHub) — **January 2022 - May 2022**
- Developed a **CNN** model to detect the seismic faults and map them on the geological scale with an accuracy of **88%**.

Automatic License Plate Recognition (GitHub) — **January 2022 - May 2022**
- Developed a model to detect License Plate/ Number Plate automatically using **YOLO** with an accuracy of **91%**.

Predicting Covid-19, Pneumonia, Tuberculosis from Normal (GitHub) — **August 2021- December 2021**
- Improved disease detection by identifying and decreasing false positives and false negatives with an accuracy of **83%**.

Titanic Ship Survival (GitHub) — **August 2021- December 2021**
- Build multiple Machine Learning algorithms to predict the survival on the Titanic and compared their accuracies.

VOLUNTEER WORK AND HONORS

- President of Cultural Club leading **70+** members, organized TedX at Medi-Caps University where I contributed with **200+** people.
- Achieved first prize on Vision Medi-Caps 2025 for reciting a speech on the future of ML/AI and its benefits for the students.