Jayesh Bhadane

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EDUCATION

MS, Data Science | *University of Connecticut, Storrs, USA* **|** GPA: 3.8/4.0	Aug 2023 - Dec 2024
Bachelor of Engineering, Computer Science | *University of Mumbai, India* | GPA: 3.0/4.0	Sep 2016 - May 2020

TECHNICAL SKILLS

- **Languages & tools**: Python, R, SQL, Azure, AWS, Tableau, PowerBI, AWS, Azure, IBM SPSS, Jupyter Notebooks, DataBricks, RStudio, PySpark, PyTorch, Github, Hadoop, Hive.
- **Frameworks**: Pandas, NumPy, Matplotlib, Rshiny, Plotly, ggplot2, Scikit-Learn, StatsModels, XGBoost, TensorFlow, Keras**.**
- **Skills**: Logistic Regression, Linear Regression, Clustering, GLMs, Decision Trees, Dimensionality Reduction, Deep Learning, Hypothesis Testing, Time Series Analysis, Statistical Analysis, Statistical models, NLP, Generative AI, A/B Testing.

EXPERIENCE

University of Connecticut - *Data Science Research Assistant, Storrs, Connecticut*   Nov 2024 - Present
- Leveraging OCR technology to digitize historical records from the American whaling industry, structuring data from images to enable statistical analysis. Testing the hypothesis that unfair insurance claim practices contributed to the industry's decline, facilitating a deeper understanding of historical socio-economic impacts.
- Conducting rigorous data deduplication and statistical analysis on historical voyage records to assess if crew race influenced outcomes within the whaling industry, driving insights into socio-demographic factors and their implications on industry practices and results.

Aurora Engineering - *Data Science Intern, Willimantic, Connecticut*   Aug 2024 - Present
- Employing advanced machine learning techniques, to accurately estimate missing or corrupted data points in NASA's MMS flight data, ensuring high-quality data for ongoing space research and analysis.
- Conduct comprehensive exploratory data analysis (EDA) on NASA's Magnetospheric Multiscale (MMS) mission's flight data, uncovering key patterns and anomalies to guide corrective measures, enhancing data integrity and usability.

C5i (Formerly Course5 Intelligence) - *Research and AI Team, Mumbai, India*

- *Senior Data Scientist*	Oct 2022 – Aug 2023
- *Data Scientist*	Apr 2021 – Oct 2022
- *Junior Data Scientist*	Oct 2020 – Apr 2021

- Implemented granger causality tests and VAR model to forecast OTT signups for Disney+, enhancing prediction accuracy by 15%, optimizing marketing spend, and increasing quarterly revenue by $84M.
- Spearheaded a two-member team for multiple Fortune 500 companies to increase customer engagement and loyalty by developing key driver models, utilizing experiment design (A/B testing) and causal inference techniques to optimize engagement and retention, driving both metrics by 18% using Python, IBM SPSS, and R.
- Executed behavioral and attitudinal customer segmentation using Python for multiple Fortune 500 companies, enhancing their marketing strategies by identifying key consumer clusters. Experimented with diverse metrics, algorithms (KMeans, KMedoids, Hierarchical), and multiple variables for precise targeting, resulting in a 26% increase in targeted marketing efficiency.
- Conducted hypothesis tests to assess significant differences among clusters and developed an Excel-based classification tool post-segmentation to accurately classify respondents into clusters, enhancing analytical accuracy and contributing to strategic decision-making processes.
- Engineered clinical and healthcare data and developed CHAID tree models to enhance insights into customer satisfaction and recommendation likelihood across various groups.
- Optimized a Python script for response level data aggregation, enhancing predictive analysis and decision-making while reducing manual stacking efforts for the data processing team from 3-4 hours to ~10 minutes.
- Led training for junior staff on POC projects, empowering them to independently manage future projects, enhancing team capability and project efficiency.

ACADEMIC PROJECTS

- **Image Clustering using AutoEncoders**: Implemented an Autoencoder to cluster images of similar animals.
- **Capstone Project (Indeed Jobs)**: Developed predictive models for Indeed's job apply starts, using ~3.5M job postings to boost applications by 27% and identify key predictors, enabling advertisers to refine listings and optimize spending.
- **Binarization for OCR:** Interactive web application for exploring image binarization techniques used in OCR.
- **MS Stock Price Prediction:** Developed an ARIMA model to forecast Microsoft's stock price.

ACHIEVEMENTS

- **Travelers Insurance Case Competition 2023**: Led my team to secure first place in a Kaggle competition by building a frequency-severity model using generalized linear models to predict claim costs for Ins Nova Auto Insurance Company's rating plan.
- **Star of the Quarter:** Awarded Star of the Quarter twice at Course5 Intelligence for exceeding role expectations.
- **Publication**: Object Detection using Hausdorff distance (https://www.irjet.net/archives/V7/i4/IRJET-V7I416.pdf)