

# 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
- 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

**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.

**Indeed Jobs - Data Scientist (Capstone Project), Willimantic, Connecticut** May 2024 - July 2024

- Developed predictive models like XGBoost, Gradient Boosting, and Random Forest for Indeed's job apply starts, using a dataset of ~3.5M job postings, increasing potential applications by 27%.
- Performed feature importance analysis identifying key predictors from a set of 14 features, empowering Indeed's advertisers to refine listings and optimize spending effectively.

**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.
- Employed factor analysis to merge multiple variables, streamlining segmentation and bolstering marketing strategies.
- 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.
- Blog Summarizer using HuggingFace:** Leveraged HuggingFace and BeautifulSoup to scrape and summarize blogs.
- CodeHelper using MistralAI:** Applied Mistral AI to create a chatbot that generates high-quality code.
- 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>)