GOUTHAM KUMAR VEMASANI

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PROFILE

Entrepreneur for 7 years and analytics professional with firsthand experience in the transformative power of data-backed decision-making in business. With a master's degree, eager to leverage my passion for analytics in data scientist roles

Skills: Python (ScikitLearn, Networkx, Matplotlib, TensorFlow, Keras, Beautiful Soup, NLTK, Selenium, pandas, NumPy), R, Excel, SQL, VBA, SAS, Tableau, Power BI

Data Science Techniques: Linear & Logistic Regressions, Decision Tree, Random Forest, Gradient Boosting, Hypothesis Testing, A/B Testing, Causal Inference, Deep Learning, ANN, RNN, CNN, NLP, Optimization Modelling

EDUCATION

Purdue University, Daniels School of Business — **West Lafayette, IN**

Master of Science in Business Analytics and Information Management — **August 2024**

- Awarded **'Beta Gamma Sigma'** for being in top 20% of graduating class of 2024 at Purdue University
- **Research Assistant (RA)** to Prof. Michael D. Eriksen - Dean, Purdue Real-Estate Finance Program
  Devised a selenium automation tool to scrape and extract real-estate cost data from RSMeans Online website

Academic Projects:

- Formulated and built a content moderation system to flag derogatory comments on Craigslist's platform, with NLP techniques GloVe and BERT Word Embeddings achieving an F1 score ~0.79
- Interpreted causal impact of Airbnb's 'Superhost' badge on occupancy rates incorporating difference-in-differences (DiD) estimation (p-value < 0.05) confirming a potential 3% causal relationship
- Led a causal inference project for the 2022 ACIC Data Challenge, quantifying the impact of U.S. healthcare interventions on Medicare expenditures using Double Machine Learning and DiD to estimate the Average Treatment Effect on the Treated

Birla Institute of Technology and Science, Pilani — **Pilani, India**

Bachelor of Engineering in Mechanical Engineering — **May 2016**

PROFESSIONAL EXPERIENCE

Microsoft — **West Lafayette, IN**

Data Scientist Intern — **January 2024 – April 2024**

- Collaborated on implementing an end-to-end image-to-text model pipeline on Azure to automate generation of product descriptions for a national retailer, enhancing discoverability for 300,000+ products
- Leveraged Azure Computer Vision (OCR) and Mistral AI (LLM) generating qualified descriptions for 77% of unlisted products, facilitating a 9% increase in overall SKU's listed

Market Data Forecast — **Hyderabad, India**

Manager, Data Scientist — **June 2016 – July 2023**

- Bootstrapped a market research startup, growing team from three to 40 employees over seven years delivering strategic recommendations to 500+ clients to empower decision-making
- Coordinated implementation of decile analysis with logistic regression to classify customers for targeted marketing. Prioritizing on top 3 deciles reduced marketing expenditures by 35%, growing ROI from 7% to 25%
- Designed and executed a A/B testing roadmap for landing page variations, leveraging Google Analytics data to optimize design achieving a 22% increase in click-through rate
- Led development of regression and time-series forecasting models utilizing historical and epidemiological data to predict trends in 270+ healthcare markets within a ±25% margin of error
- Deployed in-house Sales KPI dashboards in Tableau, for optimizing lead lifecycle and streamlining of sales workflow, contributing to a 15% reduction in lead turnaround times

Hale Clinics — **Hyderabad, India**

Data Scientist Consultant — **July 2021 – July 2023**

- Performed site selection analysis for the expansion of a healthcare clinic startup, employing a Gradient Boosting model and consolidating geospatial, demographic, and socioeconomic data, resulting in a 25% increase in footfall

LEADERSHIP ACTIVITIES, AFFILIATIONS, HONORS

- Winner of SAS Optimization Challenge 2023-24; led development of a multi-objective MILP model, employing linearization of absolute function and Pareto analysis to assess trade-offs among competing objectives
- Authored and Presented research poster on "Leveraging AI to generate descriptions from product images for E-commerce platforms" at the INFORMS Analysis Conference 2024 - Orlando, FL
- Transformed a $20 investment into $30,000 in fantasy sports by conceiving a novel approach to team selection as a Mixed-Integer Linear Programming (MILP) and combinatorial optimization problem