

Melvin Vellera

Experienced Data Scientist (6+ years) • San Francisco • (415)-632-7742

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Education

University of San Francisco, San Francisco

Jul 2021 - Jul 2022

MS in Data Science

Courses: Machine Learning, Deep Learning, Distributed Computing

Maharashtra Institute of Technology, India

Jun 2011 - May 2015

BTech in Computer Engineering

Courses: Data Structures & Algorithms, OS & Compiler Programming

Work Experience

Target, San Francisco (US Retailer)

Oct 2021 - Jul 2022

Data Scientist Intern

- **Recommender System:** Given a food recipe, the system recommends a shopping cart, consisting of ingredients, ingredient substitutes, and kitchen gadgets, which is optimized based on quantity and personalized using user's dietary restrictions.
- For semantic search, products are retrieved using a bi-encoder and re-ranked using a cross-encoder (Transformers)

Ascena Retail Group, India (US Clothing Retailer)

Oct 2018 - Mar 2021

Data Scientist

- **Product Forecasting:** Provided 6-month sales forecasts (LightGBM, Prophet) for around 180 key products (SKU) at a weekly level, and achieved an overall MAPE of around 20%, a significant improvement over existing business forecasts
- **Promotional Scenario Forecasting:** Created sales forecasting pipelines (Kubeflow, XGBoost) based on promotional activity, which was interfaced with a web application to see how forecasts change with different hypothetical promotional scenarios
- **Price Elasticity:** Developed and hosted a GCP web application using Python's Dash framework for analyzing how sensitive different product groups are to different kinds of promotions
- **Uplift & Propensity Modeling:** Built uplift, churn, and response models (XGBoost, Random Forest) for multiple brands, resulting in combined incremental sales of around \$1.8M for multiple campaigns
- **Workflow Automation:** Automated data pulls from disparate databases, streamlined code, and stored model prediction results using notebook automation (Papermill) and cron jobs, saving around 3-4 man-hours per day

Mu Sigma, India (Consulting Firm for Fortune 500 companies)

Jun 2015 – Oct 2018

Decision Scientist

- **CRM** for a Fortune 100 US Retailer in China: Personalized campaigns (WeChat, SMS) targeted at ~2M members using RFMB segmentation (K-Means) and market basket analysis (Apriori). Assessed campaign success using a statistical test (T-test), and estimated around \$4M in incremental sales over multiple campaigns
- **Demand Forecasting** for a Fortune 100 US Energy Company: Forecasted energy demand (SVR) and achieved a MAPE of around 2.5% for a 3-hour lookahead model to help a utility save around \$3M by avoiding existing vendor costs and energy regulation penalties

Skills

Languages & Technologies: Python, Pytorch, SQL, PySpark, R, SAS, Tableau, Kubeflow, Docker, GCP, AWS

Awards

Schmidt Family Foundation Scholarship: For using data science to tackle environmental issues

2 Spot Awards in Mu Sigma: For showcasing excellence in 2 data science projects