GOPI THARUN MAGANTI

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EDUCATION

University of Southern California — **Los Angeles, CA**
Masters in Machine Learning & Data Science — **August 2021-May 2023**
Relevant coursework: Machine Learning, Statistics, Deep Learning, Cloud Technologies

Amrita Vishwa Vidyapeetham — **Coimbatore, India**
Bachelor of Technology in Electronics and Communication Engineering — **July 2014-April 2018**

TECHNICAL SKILLS

- **Languages:** Python (pandas, numpy, scipy, scikit-learn, nltk, seaborn, matplotlib, PySpark, PyTorch, TensorFlow, Keras), SQL, R (Shiny, dplyr, tidyr), MATLAB, C++
- **Tools and Applications:** Power BI, Tableau, Advanced Excel, Docker, Git, Jenkins, Azure, JIRA, ETL, MS PowerPoint, MongoDB, Verica, Presto
- **Machine Learning & Statistics:** Regression, Clustering, Time Series Forecasting, Decision Trees, XGBoost, Random Forest, Anomaly Detection, Hypothesis Testing, A/B Testing, Linear Optimization, Computer Vision, NLP, Neural Networks

WORK EXPERIENCE

GOPUFF – goBrands Inc. — **Philadelphia, PA**
Data Science Intern — **May 2022-August 2022**

- ***Warehouse Labor Planning***
  - Built a data and model pipeline in collaboration with Data Science and **Operations** teams for estimating workers required for packing based on incoming orders while optimizing queue time using queuing theory and machine learning models replacing the current manual heuristics model
  - Implemented time series forecasting algorithms to estimate convenience orders from total and reduced **overstaffing** in warehouses by **30%**

MU SIGMA — **Bengaluru, India**
Data Scientist — **June 2018-July 2021**

- ***Out of Stock: Root Cause Analysis –*** *Retail giant based in US*
  - **Led off-shore team** in developing a business rule engine to track root causes for out-of-stock/ order cut instances at warehouses over various stages of **inventory management** of products across supply chain
  - Created a data transformation and manipulation pipeline in Python ensuring best coding and **CI/CD practices** in **Azure DevOps**
  - Executed business flow and to scale across regions and built an **analytical dashboard** in PowerBI to deliver results of root cause analysis and to monitor root causes leading to a reduction of **~40% of cuts in orders**, saving of **~$1.5M** in immediate **lost sales**
- ***Market Mix Modelling (MMM) –*** *CPG giant based in US*
  - Collaborated with customer's marketing insights team to developing a methodology and to identify trending media channels
  - Improved prediction accuracy of existing models by 8% and responsible for creating a data pipeline, model operationalization
  - **Led the team** in creating an **RShiny** dashboard-based simulator to optimize ROI /incremental revenue for brands bridging gap between teams
  - Achieved an average of **10.5% ROI increase** and a total of **~$16M increase in incremental revenue** across brands x geographies
- ***New Product Forecasting –*** *CPG giant based in US*
  - Outlined and designed a New Product Forecasting solution to predict sales of a product before launch based on its characteristics (Flavor, Texture, Packing) employing **linear mixed-effects regression models.** Achieved a forecasting accuracy of **85-90%** across portfolios.
  - Further created a semi-automated pipeline to reduce **turnaround time** for model refresh for new portfolios by **80% and** built a **scenario planner** with R Shiny, CSS and HTML to visualize and compare forecasted sales of multiple innovations and to aid decision making
- ***Social Media Listening –*** *Retail giant based in US*
  - Collaborated with **Sr. Director** of Data Science and Analytics Global R&D team for developing a **PoC** to identify snack ingredients trending on **social media** for **upcoming innovations** in snack portfolio
  - **Scraped** twitter data using **Selenium** and **Twitter API**. KPIs were identified in collaboration with business and ingredients were ranked
- ***Sales Performance Dashboard –*** *Pharma giant based in US*
  - Designed and built a **Tableau** dashboard for a leading Pharma giant to provide insights on sales of drugs through effective visualizations for regions across North America and Europe

ACADEMIC PROJECTS

- **Salary Prediction**
  - Predicted salary from job description text, using td-idf word transformer and voting regressor with ensemble of Decision tree, XGBoost, MLP Neural Network regressors 95% accurately. Important features were selected using SVD decomposition and PCA retaining 90% variance in data
- **Document Search Engine using BERT**
  - Built a document search engine based on a keyword input from user on a limited set of documents. Used pre-trained BERT – Large, Cased, and ElasticSearch as backend for search engine in Java. Developed a Flask app to display search results and to capture input
- **Product Classification using Images**
  - Performed image classification with convolutional neural networks to differentiate a particular product from images on a shelf of retail store and attained accuracy of 92%, 0.86 F1 score. Generated synthetic image set for training neural network by data augmentation technique in Keras

RECOGNITION

Received certificate of appreciation under the **Star Performer** of the Team Award at **Mu Sigma** for contribution in outlining solution framework for **New Product Forecasting** project and for leading the team in building a simulator, making key improvements, which earned **praise** from multiple business stakeholders — **Mu Sigma** **February 2020**