

# THARUN S SRIRAM

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## PROFESSIONAL EXPERIENCE

### THE VANGUARD GROUP

Dallas, US

Data Scientist Intern | Financial Advisory Services Data Science Lab

Jun 2023 - Aug 2023

- Substantially improved **capture rate** to **60%** from a ~13% baseline for Vanguard product recommendations made to broker dealer clients by engineering & redesigning a recommendation system, applying **matrix factorization** with **Bayesian Personalized Ranking** (BPR) & a supervised **Recurrent Neural Network** (RNN) framework.
- Achieved a **~75% speed improvement** by parallelizing and optimizing the existing codebase, while seamlessly migrating operations to **AWS SageMaker**, from an older cloud platform, for enhanced scalability and performance.
- Modularized experiments repository & prepared comprehensive technical documentation; adeptly communicated insights and recommendations to internal stakeholders, fostering a data-driven decision-making culture.

### ANHEUSER BUSCH INBEV

Bangalore, India

Associate Data Scientist | Revenue Management

Aug 2020 - Sep 2021

- Saved over **6000 man-hours** and improved process efficiency by automating key combinatorial modeling workflows for feature engineering macro-economic indicators for pricing strategy in the top 20 markets.
- Attained a **9.6%** increase in yearly sales performance surpassing pre-pandemic levels by spearheading Covid-19 market analysis and **sales forecasting**. Isolated core sales drivers and applied **time series analysis** in key markets.
- Implemented analytics driven promotions and advertisements strategy in over 10,000 retail outlets in Mexico by leveraging **K-means clustering** and millions of rows of real-time store data to **quantify consumer behavior**.
- Enhanced organic revenue growth by **over 15.6%**, helping rake in **~\$40B** with improved market share through the optimization of product pricing and mix using **elasticity & simulation** frameworks in the top 20 global markets.
- Anatomized & automated product launch workflows by creating a **decision-tree** classifier to predict SKU segments.

## EDUCATION

UNIVERSITY OF CALIFORNIA LOS ANGELES (Anderson School of Management)

Graduated Dec 2023

Master of Science in Business Analytics (Data Science) | GPA: 3.95/4.0, Top 15%

- Courses:** Statistics, Machine learning, Large Language models, Data Management + SQL, Customer/Marketing analytics, Optimization, Competitive Analytics, Operations Analytics, Internet Analytics, Fraud Analytics, Product Management, Forecasting & Time Series, Business Fundamentals (Finance, Economics, Marketing), Mathematics

NATIONAL INSTITUTE OF TECHNOLOGY TRICHY

Aug 2016 - Jun 2020

Bachelor of Technology | Chemical Engineering, Minor: Computer Science

- Courses:** Data Structures and Algorithms, Computer Organization, Operating systems, Database Management Systems, Software Engineering, Engineering Mathematics, Industrial Economics, Chemical Engineering

## SKILLS

Languages:	Python (Pandas, NumPy, SciPy, Matplotlib, Statsmodels, Scikit-learn, Keras/TensorFlow, nltk, Hugging Face), R (dplyr, ggplot2, caret, Prophet), C++, SQL (MySQL, MS SQL), Bash.
Software:	AWS (SageMaker, S3), Git, Snowflake, Gurobi, Tableau, Jira, MS Excel & PowerPoint
Certification:	SQL Advanced (HackerRank), Machine Learning (Stanford), Neural Networks and Deep Learning   Convolutional Neural Networks   Introduction to TensorFlow (deeplearning.ai).
Data Science:	Machine Learning, Deep learning, Natural Language Processing & LLMs, Predictive + Prescriptive Analytics, A/B testing, Optimization, Causal Inference, Clustering/Segmentation, Forecasting/Time series, Recommendation systems, Agile, Product Management, Strategy.

## PROJECTS

- BECTON DICKINSON & UCLA CAPSTONE PROJECT** - Developed an AI-based search engine solution to rank clinical trials for use by internal researchers, by leveraging a custom trained **BERT-based sentence transformer**.
- AMAZON X UCLA HACKATHON FINALISTS** [Link] - Designed and implemented a framework for recommending similar products using **content-based ranking**, leveraging product meta data from Amazon. Qualified to the top 4.
- IMAGE RECOGNITION** [Link] of 10 different classes in the **CIFAR-10** dataset using **Convolutional Neural Networks** in Python (Keras). Achieved an accuracy greater than 0.75 as a baseline for non-augmented images.

## LEADERSHIP AND ACHIEVEMENTS

- ANALYTICS LEAD** for the campus undergraduate placement course: Formulated analytics curriculum for mock tests and interviews; assisted and coached over 70 students for a career in analytics and data science (2019)
- RUNNER-UP** in the Ernst and Young national case study competition; created a framework for a machine learning and algorithm based mobile app system to manage truck logistics (2019)
- SEMI-FINALIST** in the Indian Schools Debating Society championship (2015)