

# Achyuthuni Sri Harsha

Business Analyst | Data Scientist | Converting business problems to data-driven solutions  
Imperial College London | Tesco | IIMB | [www.harshaash.com](http://www.harshaash.com)

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## EXPERIENCE

### **TESCO, Bangalore — Senior business analyst**

April 2020 - PRESENT

As Senior Analyst at Tesco Bengaluru, I am responsible in the domain of Space, Range, Display, Merchandising and Promotions for the markets UK, Central Europe and Ireland. I optimise store operations to ensure products are always available to the customers. I am also responsible for identifying and solving data science and analytics problems.

Key Achievements:

1. Collaborated with business teams, display managers and store managers to take various data-driven decisions: analysed 10+ ad-hoc requests to provide actionable insights and automated 5+ reports to facilitate better store efficiency
2. Led the team to identify potential problems that can be solved using data science and delivered three of them to different stakeholders
3. Created 5+ reusable codes and write-ups as part of an organisation level effort to enhance enterprise-level knowledge repository



Mu Sigma

### **Mu-Sigma, Bangalore — Decision Scientist**

October 2017 - April 2020

Worked as a business analyst and data scientist for Fortune 500 clients:

1. Built and deployed end to end classification, regression and optimisation models for Walmart International supply chain with an impact of \$12 million/month
2. Performed clean sheet cost analysis to estimate the actual cost of private brand food products. Optimised an overdetermined system of equations to 85% accuracy to help drive negotiations for in-house manufacturing
3. Corroborated on large scale projects with technology and business partners from USA, Mexico and Argentina

Additional responsibilities:

1. Mentored three batches of young analysts (5 in one batch) on analytical problem spaces like demand forecasting and customer churn prediction
2. Took sessions on hypothesis testing and linear regression to different classes (30 people in a class)

## SKILLS

Analytics: R, Python, CPLEX

Data handling: SQL, Alteryx

Visualization: Tableau, HTML, Javascript

Cloud: Google Cloud Platform

## PUBLICATIONS

**Personal analytics: Time management using Google Maps:** presented in an international conference

**[Parametric Study of Cantilever Plates Exposed to Supersonic and Hypersonic Flows](#):** IOP Conference Series: Materials Science and Engineering

## AWARDS

**Spot award:** Mu Sigma

**Highly commended project:** IIMB capstone project

## CONTACT

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GitHub:  
[github.com/HarshaAsh](https://github.com/HarshaAsh)

## EDUCATION



### Imperial College Business School, London

MSc Business Analytics | September 2020 - September 2022

MSc from Business analytics from Imperial College London Business School. Part-time, 2020-22 cohort.

Core modules: Data Structures and Algorithms, Machine Learning, Network Analytics, Statistics and Econometrics

Ranked #2 in the world in the QS Business Masters: Business Analytics Rankings 2020.



### Indian Institute of Management, Bangalore

Executive Certificate, Business Analytics and Intelligence | June 2019 - June 2020

Business Analytics and Intelligence part-time on-campus executive education programme.

Project: "Optimisation of R&R contests for a life insurance company using predictive and prescriptive analytics" (Awarded highly commended project)



### Amrita Vishwa Vidyapeetham, Bangalore

B.Tech Mechanical Engineering | June 2013 - June 2017

Graduated with distinction and CGPA of 8.91 /10 in Mechanical engineering. Treasurer of SAE India club. Conducted various events.

## CERTIFICATIONS

Data Engineering, Big Data, and Machine Learning on GCP - Google Cloud

Data Science: Machine Learning - Harvard & edX

Machine Learning A-Z: Hands-On Python & R In Data Science - Udemy

Machine Learning & AI: Advanced Decision Trees - LinkedIn

## INTERESTS

Data science, analytics, Machine learning, Artificial intelligence, time series

## PROJECTS

### Optimisation of R&R contests for a life insurance company using predictive and prescriptive analytics— IIMB capstone project

Technologies used: R, Excel, Google Colab

Awards: Awarded "Highly commended project" for the BAI batch of 2019-20 at IIM Bangalore.

**Problem Statement:** Building optimal R&R contests for agents of a large life insurance company.

Forecasting sales of an agent

- Built a regression model which can explain 97% variation in sales.
- Quantified the lift generated due to different contest parameters

Clustering of agents based on their capacity

- Identifying the factors which affect the maximum capacity of sales of an agent and clustering the agents based on them

Simulation and optimisation of contest parameters

- Simulated the cumulative sales for different contest parameters in each cluster of agents
- Identified the most optimal parameters based on budget and other constraints

## Supply chain analytics — *MuSigma (Client: Walmart)*

**Technologies used:** R, Python, SQL, CPLEX, Google cloud\*

**Problem Statement:** Reducing out-of-stock scenarios in stores by identifying and quantifying the different factors, predicting the failures due to various factors and optimising inventory based on them.

**Team:** Collaborated with the technology and business units of Walmart Supply chain and market POC's in the US, Canada, Mexico, Argentina and Chile. Worked end-to-end from ideation to POC development to production

**Quantified savings:** The potential average cost savings from a reduction in inventory and out-of-stock costs would be \$12 Million per month

Quantify the reasons for under-stock scenarios

- Quantified the reasons causing under-stock scenarios in a store utilising hypothesis testing and statistical modelling pinpointing the two main factors among 14 with the most significant impact (fillrate and lead time).

Identify the risk of a supplier to deliver an order

- Designed classification model (gradient boosting) predicting the risk of a supplier not delivering an order in full (fillrate) with 75% accuracy and 50+% specificity
- Deployed the solution on cloud and created workflows to predict the risk daily

Forecasting inbound lead time of vendors

- Forecasted lead time applying a tree-based ensemble regression model (random forest) with 85% (SMAPE) accuracy
- Deployed the solution on cloud and created workflows to predict lead time daily

Optimising inventory at store and warehouse

- Optimised EOQ and reorder point using an integer programming model
- Formulated and validated the approach under the Senior Director of Supply chain at Walmart

## Personal analytics— [www.harshaash.com](http://www.harshaash.com)

**Technologies used:** WordPress, R, Python, HTML, CSS, JavaScript

- Designed and maintains [www.harshaash.com](http://www.harshaash.com). Publishes blogs on topics related to the basics of analytics and exciting day to day use cases of analytics
- Created dashboards which explain analytical concepts on shinyapps.io