

Data Scientist with more than 6 years of experience with Analytics and Data science processes. Involved in strategy planning, developing and implementation of key business solutions.

### SKILLS & COMPETENCIES

Python

R

SQL

Machine Learning

Statistics

Visualization

Data Mining

Deep Learning

Computer Vision

Marketing and Promotion / Store / Category Analytics

Retail

### WORK EXPERIENCE

09/2018 – CURRENT

#### Data Scientist

Cognizant, Chennai

- Worked on end to end planning, development, and deployment of solutions for a healthcare product, in turn, helping the health plans saving millions of dollars on outreach programmes, improving ratings from NCQA and increasing their revenue
- Developed predictive models for health plans to analyze member behavior for focused outreach interventions leading to improved quality of care and member satisfaction
- Developed utility for internal teams to create production-grade data using MSSQL

06/2014 – 09/2018

#### IT Analyst / Data Science

Tata Consultancy Services, Chennai/London

- Worked as an Analyst and Lead for a UK based retailer client (M&S), built predictive models and worked on Marketing and Promotion / Store / Category Analytics to bring out insights. Have experience working in SAP systems (SAP ECC, SAP BI, SAP PO and SAP HANA) and visualization tools like Power BI
- Worked at client location in London as Onsite coordinator for a year and was responsible for the estimation, planning, requirement gatherings, and client reporting
- Have successfully led the team and implemented complex projects in production

### EDUCATION

#### BE – Electrical and Electronic engineering

Anna University, Chennai, Tamil Nadu

08/2010 – 04/2014

### TECHNICAL SKILLS

**Quantitative Methods:** Feature Engineering, Regression, Statistical Modelling, Classification, Clustering, Time Series, Affinity & Association, Object Detection/Classification/Tracking

**Database:** MSSQL, Oracle, DB2

**Applications/Tools:** SAP (SAP ECC, SAP BI, SAP PO, and SAP HANA), IBM Data Stage, EC2, Docker, Kubernetes

**Visualization Tools:** PowerBI, Tableau

**Statistical Tools:** R, Python

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## PROJECTS

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### ClaimSphere™ Quality Improvement Predictive Analytics (QIPA)

#### Domain – Healthcare

- Worked on development and deployment of predictive modelling for Cognizant's Predictive Analytical Solution that enables health plans to improve regulatory compliance and analyze member behavior for focused outreach interventions leading to improved quality of care and member satisfaction, and saving vital healthcare dollars
- Used supervised (Xgboost and Random Forest) and unsupervised (Kmeans clustering) machine learning models to find the probability of becoming complaints and stratifying the members into different deciles

### Vendor Funded Promotion Sales

#### Domain – Retail

- Worked for retail domain on analyzing outlet data and developing a regression model for predicting outlet sales at the item level
- Developed end to end pipeline using python involving data validation, feature engineering, hyperparameter tuning, detecting best model, model training, and model prediction
- Used unsupervised ML algorithm (Kmeans clustering) to stratify the items of similar features and used multiple algorithms (Random Forest, XgBoost, Linear regression) to scale the performance based on which the best model was used for final training and prediction.

### Computer Vision Projects

- Developed an object detection model using SSD to detect if the hand is crossing the safety line and alert the user if happens. The purpose of the project was to create a safety check for the shredder machine to avoid anyone putting hands beyond the limit. With the help of google coral device and camera positioned with top view, shredder machine AC supply is halted when the system detects any hands crossing the safety line
- As COVID 19 projects, with the help of faster RCNN, developed a model to detect if a person is wearing masks and also at the same time maintaining social distancing or not

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## ACHIEVEMENTS

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- Received '**Above and Beyond**' award at Cognizant for creating an end to end data science solution on stratifying the members for the outreach programme. The health plan spends \$25 to \$40 per person for the outreach programme. Stratifying the members help health plan to save millions of dollars
- Received '**Certificate of Merit**' at TCS for the contribution towards the client relationship

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## ARTICLES AND COMPETITIONS

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- Have been added as official author of **Towards Data Science** and **Analytics Vidhya**. Have published articles on the computer vision, feature engineering. (Medium – <https://medium.com/@vijayarajan.s>)
- Have actively participated in multiple competitions in Kaggle to put forth my analysis and ideas. (Github– <https://github.com/vijayarajans92/>)

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## ALGORITHMS

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Linear/Logistic Regression

Clustering

Decision Tree

Boosting

Random Forest

Time Series

Naïve Bayes

SVM

Association Rule Mining

PCA

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