

# Tarunvel Venugopal Santhamani

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## Skills

**Programming:** Python (Numpy, Pandas, Sklearn, Matplotlib), R, PySpark; SQL – Oracle, PostgreSQL; NoSQL, Java (Basics), C++

**Tools:** Visualization: Tableau, PowerBI, Looker; Microsoft Excel, Jira, SAP, GitHub

**Technologies:** Data Mining, Machine Learning, Statistics, Database Management Systems, Data Warehouse (ETL & Data Pipelines), Project Management (Agile, Scrum, & SDLC), Marketing Analytics, Business Intelligence, AI, AWS (Basics), Data Analysis & Modeling

## Certifications

“Advanced SQL”, “Python Gold Badge” – Hackerrank; “Python for Data Science” – IBM; “ML in Scikit-Learn” – DataCamp

## Experience

### Data Analyst & Software Developer

September 2020 – August 2022

Tata Consultancy Services Limited (TCS Digital),

Chennai, IND

- Streamlined the file handling system in a product through comprehensive analysis, strategic optimization, and implementation of efficient algorithms, resulting in a 30% reduction in processing time and improving system performance
- Collaborated with 7 cross-functional teams to create and implement SQL scripts for analyzing big data uploads, resulting in streamlined data consolidation and enhanced data integrity for a payment feature in the financial application
- Created and automated Key Performance Indicators (KPIs) Dashboards in Tableau and Excel using macros for performance reporting templates of projects, achieving a 50% reduction in the manual preparation time of standard client reports
- Optimized the product backlog through collaboration with stakeholders refined user stories and prioritized 200+ backlog items in JIRA to bridge the gap between product owners and developers in each agile sprint
- Improved workflow efficiency by 25% by developing and optimizing a feature that creates report templates for big data uploads, fetching fields from different tables in the database, and using SQL scripts
- Developed and implemented an email automation feature with UI components, reducing manual handling time by 40% for a major financial firm so that end users receive notifications and alert emails directly from the software.
- Optimized auto-populating feature for data fields in tax forms, leading to a 75% reduction in manual data entry for filing
- Resolved critical OCX and software issues through bug fixing and comprehensive software testing, ensuring seamless version upgrade for all SaaS customers across servers and databases without a single defect or post-upgrade issue

**Projects** (GitHub - [github.com/TarunvelVS](https://github.com/TarunvelVS); Tableau - [public.tableau.com/app/profile/tarunvelvs/vizzes](https://public.tableau.com/app/profile/tarunvelvs/vizzes))

### Diabetes Prediction

- Developed and implemented logistic regression and decision tree models; performed thorough analysis including collinearity assessment, outlier detection, feature significance with p-values, step-wise selection, error analysis, and hypothesis tests to achieve an accuracy rate of 95% with logistic regression

### Financial & Statistics Analysis of Sales Data

- Conducted comprehensive financial and statistical analysis of sales data utilizing SQL and Tableau, extracting insights on consumer behavior, product performance, market & sales trends, resulting in optimized strategies and revenue growth

### Machine Learning Model Using Logistic Regression, Classification & Clustering

- Developed machine learning models utilizing Python libraries for crop recommendation, housing price prediction, logistics and supply chain optimization, and sports prediction with an average accuracy of 90%, improving decision-making processes and operational efficiency

## Education

### University of Massachusetts Amherst, Isenberg School of Management

Master of Science in Business Analytics | GPA: 3.95/4.00

December 2023

• Coursework: Data Management using Advanced Excel, Business Intelligence, Corporate Finance, Business Statistics, Data Mining & Machine Learning Techniques, Project Management, Data Science & Visualizations, Marketing Strategy

### Anna University, Bannari Amman Institute of Technology, India

Bachelor of Engineering in Mechanical Engineering | GPA: 8.56/10 (Distinction)

March 2020

## Activities & Awards

Semi-Finalist, TCS CodeVita 2K19 (global coding contest); Star Team & Learning Achievement Award, TCS, 2022

Member & Participant, MIT Product Conference and Boston Product Management Association (BPMA), Boston, February 2023

**Leadership:** Research Assistant in Solar AC Research – Led design team in designing and developing solar AC that reduced energy consumption by 25% while maintaining optimal indoor air quality