

# SURIYA NARAYANAN SURENDRA BABU

MSC DATA ANALYTICS STUDENT

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## SUMMARY

MSc Data Analytics student with hands-on experience in Python, SQL, Power BI, and Tableau, specializing in data analysis, customer behavior analytics, and financial risk modeling. Proven ability to build end-to-end analytics solutions - from data cleaning and feature engineering to machine learning modeling and dashboard reporting. Seeking an entry-level Data Analyst or Graduate Analyst role to deliver data-driven insights and support business decision-making.

## TECHNICAL SKILLS

- **Programming:** Python (Pandas, NumPy, Scikit-learn), SQL (MySQL, PostgreSQL).
- **Data Analysis:** Statistical Analysis, Hypothesis Testing, and Predictive Modeling.
- **Data Visualization:** Tableau, Power BI, Matplotlib, and Seaborn.
- **Database Management:** Query Optimization, Stored Procedures, and Data Warehousing.
- **Excel & VBA:** Power Query, PivotTables, Automation Scripts.
- **Courses:**
  1. Basics of Python – Preplnsta
  2. Data Analytics – Preplnsta
  3. UI/UX Design Essentials (Figma)
  4. Effective Dashboards using Power BI
  5. SQL for Data Science

## EDUCATION

2025 – 2026 | National College of Ireland

MSc Data Analytics

**Modules:** Statistics and Optimization, Analytics Programming and Data Visualization, Data Governance, Ethics, and Sustainability, Business Intelligence and Business Analytics, Data Mining and Machine Learning, Deep Learning and Generative AI, Data Intensive Scalable Systems, Domain Application.

2020-2024 | Saveetha School of Engineering

BE Computer Science Engineering

**Grade:** First Class Honors

**Modules:** Data Structures and Algorithms, Database Management Systems (DBMS), Artificial Intelligence and Machine Learning, Cloud Computing, Ethical Hacking, Python Programming.

2018 – 2019 | Velammal Vidhyashram, Chennai, India

HSC, CBSE

Higher Secondary Certificate (Class 12)

## EXPERIENCE

Dec 2023 - Feb 2024 | Preplnsta Pvt Ltd

Data Analyst Intern

- Developed an Excel-based Bike Buyers Dashboard using PivotTables and VLOOKUP, improving data visualization and customer trend analysis by 30%.
- Solved a complex case study using SQL in Knight Lab, implementing advanced JOINS, subqueries, and aggregate functions, achieving 100% resolution accuracy.
- Designed an interactive Tableau dashboard to visualize air pollution levels across India, integrating geospatial mapping and trend analysis to improve environmental data accessibility.

- Conducted Fitbit tracker data analysis, performing data cleaning, statistical analysis, and visualization to extract insights on user activity, heart rate, and sleep patterns.
  - Collaborated with cross-functional teams to ensure accurate data interpretation and alignment with business objectives.
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## PROJECTS

### 1. Modelling Financial Health of Customers Using Multi Source Banking Behavior Data (MSc Project):

- Built ML models on 45,000+ bank customer records, engineering 60+ features to classify customers into Stable, At-Risk, and Vulnerable risk tiers.
- Applied K-Means clustering to segment customers and used SHAP/LIME to explain model predictions, improving model transparency and trustworthiness.
- Delivered insights via Power BI dashboards and deployed a Fast API-based real-time scoring system, enabling instant financial risk evaluation.

### 2. Analyzing Global Agriculture Trade Indices Using Big Data Pipelines:

- Processed and transformed 416,000+ FAOSTAT trade records spanning 2000–2023 into a structured PostgreSQL database for continent-level analytics.
- Engineered an automated PySpark + S3 data pipeline with 7+ preprocessing steps (reshaping, null handling, continent mapping, feature engineering).
- Designed and deployed an interactive Power BI dashboard visualizing 6 key KPIs across 257 regions and 186 commodities.
- Automated end-to-end pipeline refresh using Windows Task Scheduler and batch scripts, enabling weekly updates with zero manual intervention.

### 3. ECG Signal for Heart Malfunctioning:

- Developed a machine learning model to analyze ECG signals and detect cardiac abnormalities.
  - Achieved 95% accuracy in classifying normal vs. abnormal heart rhythms.
  - Processed and analyzed 5,000+ ECG samples using Python, NumPy, Pandas, and Scikit-learn.
  - Implemented feature extraction techniques and classification algorithms to improve detection accuracy.
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## INTERESTS AND ACHIEVEMENTS

- **Sports Coordinator (Badminton):** Led and conducted 3+ inter-departmental tournaments, increasing student participation by 25%. Assisted in coaching and event management to enhance team engagement.
- **Symposium Coordinator:** Organized and managed various technical events, including paper presentations and coding competitions, during college symposiums. Led a team to execute large-scale student participation successfully.
- **Paper Presentation (Blockchain Technology):** Presented a research paper on blockchain technology at a college symposium, competing against 50+ participants. Successfully demonstrated the impact of decentralized systems in various industries.
- **AI Workshop Participation:** Engaged in a 2-day hands-on workshop on Artificial Intelligence, gaining practical exposure to machine learning applications and neural network implementation.