

SKILLS

- **Programming:** Python (Pandas, NumPy, Matplotlib, Seaborn), R, SQL (Oracle, PostgreSQL, MySQL, Snowflake), Spark, Unix
- **Tools:** Tableau Desktop, Tableau Prep, Alteryx, Power BI, Data Studio, MS Excel, MS Project, Jira, Visual Studio, Jupyter Notebooks
- **Others:** Data Visualization, Data Analysis, AWS (Redshift, S3), Azure, Git, GitHub, Google Analytics, Agile, Scrum, Data Warehouse, ETL Pipelines, Statistics and Analysis, Data Modeling, Machine Learning, optimization
- **Certifications:** “Advanced Data Analytics” – Google; “Python for Data Science” – IBM; “Data Analysis” – Tableau

PROFESSIONAL EXPERIENCE

University of Massachusetts

Amherst, MA, US

Data Science (Research)

Feb 2024 - Present

- Analyzed 20+ scholarly articles and research publications to frame an analytical approach to quantify food security. Exploratory Data Analysis & Principal Component Analysis are carried out on a dataset containing 247 variables to calculate Food Consumption Score (FCS).
- Utilized Tableau, Python, Scikit-Learn & TensorFlow for statistical modeling to predict the FCS.

Tata Consultancy Services Limited | Client: Citi Bank; CoreLogic

Chennai, TN, India

Software Developer | Product Analysis

Sep 2020 – Aug 2022

Development & Programming:

- Optimized file handling by executing a library file with Progress 4GL and Bash, cutting processing time by 10%.
- Enhanced data processing of **unstructured data (JSON, XML, Documents)** in software to **improve workflow efficiency** by 10%.
- Implemented customized report template where user can select the data fields required in the report, created **programming scripts to fetch data from 10 different tables in the Database** (Progress 4GL Database).
- Introduced the “Mail Management” feature in the software to provide **enhanced features & recommendations for sending mails and alters** from the software with the help of Python and Progress 4GL.
- Automated daily status report visualizations using advanced Excel Macros, improved process efficiency and report accuracy by 30%.

Testing and Software Management:

- Planned testing phase for implementing Progress 11.7 Migration and software version up-gradation; Awarded “**Star Team**” for successful deployment of the upgraded version to all SAAS customers in Azure.
- Refined & **prioritized over 200 product backlogs** in agile sprint in **JIRA**; Maintained **software version using git & SVN** to track the versions in an SDLC & for **continuous integration and development (CI/CD) pipeline**.
- Designed & executed test scripts for regression, unit & functional test cases & managed those using Zephyr.

RK Industries

Coimbatore, India

Business Analyst | Operations (Internship)

Jan 2020 - Aug 2020

- Implemented **Excel macros & Power BI** for report generation, significantly reducing manual effort in routine updates; Analyzed the feasibility of integrating CNC machines for gear manufacturing to **enhance production efficiency** by 25%.

EDUCATION

University of Massachusetts Amherst

GPA: 3.9/4.0

Master of Science in Business Analytics

Dec 2023

- Relevant coursework: Machine Learning, Data Mining – Neural Networks, Statistics & Probability, Business Intelligence & Big Data Systems, Accounting & Finance, Marketing - Strategy, CRM, Supply Chain Analytics

PROJECTS

Classification Machine Learning Model for Diabetes | [GitHub Link](#) | [Presentation Link](#)

- Algorithms: Logistic Regression, Decision Tree, KNN Classification, Neural Network
- Process: Performed extensive data cleaning & transformation on a dataset of 100K healthcare records; Utilized GridSearchCV and Cross-Validation for hyperparameter tuning prune decision tree & optimize KNN model.
- Result: On Comparison of four models Logistic Regression model achieved a recall of 80%.

Market Intelligence: Consumer Behavior and Strategic Analysis – Product, Customer, and Sales Analysis | [Dashboard Link](#)

- Designed KPI Dashboard to analyze 5 KPI metrics (Profit, Sales, Orders Quantity, Revenue & Shipping Costs), these key metrics will help to improve decision-making efficiency; Customer Analysis for consumer behavior to increase targeted marketing conversions

Case Studies | Python, NumPy, Pandas, Matplotlib, Seaborn, Tableau, PowerBI, SQL | [GitHub Link](#) | [Financial Report](#) | [Market Report](#)

- **Insurance Analysis:** Analyzed to determine cost influencers to reveal key customer insights. Applied statistical analysis to assess the impact of age, BMI, and health conditions impacts insurance costs, supporting strategic decision-making.
- **Restaurant Analysis:** To uncover trends & insights that influence restaurant ratings & customer preferences using various features such as cuisine type, location, customer reviews, & geographical location to help improve customer satisfaction and marketing strategies
- **Financial Analysis:** Created Operational Analytics dashboard & forecasted sales using key metrics (Gross Profit, Sales Volume, Gross & Net sales)