Ramaswamy Iyappan

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Education

George Mason University Jan 2022 - Dec 2023
Master of Science in Computer Science *Fairfax, VA*

Vels University Aug 2016 - May 2020
Bachelor of Science in Computer Science *Chennai, India*

Skills

Languages: Python, R, SQL, Git, Javascript, Java, Linux
Frameworks & Libraries: PyTorch, PySpark, TensorFlow, Keras, Scikit-Learn, Nixtla, Numpy, Pandas
Database Tools: MySQL, Oracle, PostgreSQL, SQL Server, Databricks, MS Excel
Data Visualization: Tableau, PowerBI, Matplotlib, Seaborn, Pyplot, ggplot
DevOps: Snowflake, AWS, MS Azure, Terraform, CI/CD, Kubernetes, Docker
Certifications: IBM Data Science Professional, Google Data Analytics Professional, AWS Certified Developer Associate, Solutions Architect Associate & Cloud Practitioner

Experience

Data Scientist Jan 2024 - Present
US LBM *Dallas, TX*

- **Led demand forecasting** for a national distributor, enhancing supply chain planning across divisions and SKU levels.
- Achieved a **MAPE of less than 20%** for over 70% of SKUs by using a **Stacking Ensemble** of time series models.
- Built and tested time series models (ARIMA, XGBoost, Auto Deep AR), **forecasting sales up to 1 month** ahead.
- **Tackled challenges** with sparse, low-volume, volatile, and new item data by customizing forecasting techniques.
- Utilized **Nixtla** open source packages to enhance time series **feature engineering** and model performance.
- Deployed models to production, contributing directly to the operational efficiency of demand planning processes.
- Explored machine learning and **neural network** models for time series forecasting, boosting performance for key SKUs.
- Maintained **data pipelines using Snowflake, Python, and Tableau** for seamless data processing and analysis.
- Prioritized forecasts based on sales volume and revenue, ensuring focus on high-impact predictions in decision-making.

Data Science Intern May 2023 - Dec 2023
US LBM *Dallas, TX*

- Cleaned and **preprocessed** unstructured data, enhancing statistical efficiency and data quality for better analysis.
- Performed **EDA using Pandas and SQL** to uncover key insights, KPIs, and customer usage patterns.
- Explored and evaluated time-series analysis tools such as **Sklearn and AutoTS** to improve forecasting capabilities.
- Applied **clustering techniques** to reduce modeling time and enhance forecast accuracy for time series models.
- **Streamlined data processing** using **Snowflake**, reducing data preparation time by 30% for large-scale models.
- Delivered actionable **insights through Tableau**, impacting demand planning and supply chain decisions.
- Collaborated with business analysts to align forecasting models with real-world business needs.
- Assisted in feature engineering, extracting variables like **seasonality and trends** to improve forecast accuracy.
- Participated in cross-functional meetings to present early-stage forecasts and gather feedback.

Data Analyst Aug 2018 - Dec 2021
HCL Tech *Chennai, India*

- Collected, cleaned, and analyzed large datasets using SQL, Python, and **R**, reducing project turnaround time by 25%.
- **Optimized SQL queries**, reducing runtime by 20%, improving data accuracy, and streamlining reporting processes.
- **Automated** repetitive data analysis tasks with Python, saving 100+ hours of manual work and boosting productivity.
- Increased data processing efficiency by 20% by optimizing workflows and implementing scalable solutions.
- Built interactive **Power BI dashboards**, increasing user engagement by 18% and tracking key performance metrics.
- Performed in-depth SQL data exploration, aligning insights with business objectives for better decision-making.
- Collaborated with cross-functional teams to gather business requirements and **deliver data-driven solutions**.
- Ensured compliance through SQL data profiling and validation in **Azure Data Lake**, achieving a 95% accuracy rate.
- Built ETL pipelines with **Azure Data Factory**, integrating data from multiple sources into Azure SQL DB for analysis.
- Streamlined big data projects with **PySpark** and **Azure Data Bricks**, boosting data processing speed and scalability.