

SIVARAM SENTHILKUMAR

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Experience

University of Massachusetts Amherst

Jan 2026 – May 2026

Graduate Teaching Assistant – Predictive Analytics & Statistical Learning

Amherst, MA

- Led weekly office hours for **60+ students** in **Python**-based predictive analytics, **Power BI**, **DAX**, and **SQL** (CTEs, window functions) strengthening understanding of data modeling, visualization, and model evaluation techniques
- Coordinated communication between students and faculty to ensure timely feedback and smooth course operations, reducing missed deadlines and improving learning outcomes
- Collaborated with faculty to refine coursework and align assignments with industry-relevant analytics practices, strengthening student engagement and career readiness in data-driven roles

University of Massachusetts Amherst

Sep 2024 – Mat 2026

Graduate Student – Academic Projects

Amherst, MA

- Analyzed **10-year financial ratios** for **State Street** (2015–2024) across liquidity, leverage, and profitability; compared with **BNY Mellon** and evaluated Austin & Hyderabad facility investments using **IRR**, **CFAT**, and Annual Worth [Link](#)
- Built interpretable predictive models for food insecurity across **3,000+ U.S. counties** using socio-economic indicators, identifying key drivers through **SHAP** analysis to support population-level risk assessment [Link](#)

HDFC Bank – Data Strategy Department

Jun 2023 – Jun 2024

Manager - Data Analyst

Bangalore, India

- Designed interactive **Power BI** dashboards on **Azure Databricks** surfacing **KPIs** across acquisition, retention, and revenue for executive stakeholders, driving **35%** uplift in analytics adoption across 5+ business units
- Optimized **semantic data models** using **DAX** calculated columns and measures; enforced **row-level security (RLS)** across **Power BI** workspaces, cutting unauthorized data exposure incidents to zero
- Engineered **ETL** pipelines in **Python** and **Power Query (M)** pulling from **Azure Data Factory**, **SQL** databases, and Excel, reducing data preparation time **15%** across 3 reporting teams
- Unified **CRM**, transactional, and behavioral data from **Azure** services into a single **Power BI** semantic layer, consolidating **8+ disparate sources** into one source of truth for churn, acquisition, and campaign reporting
- Developed predictive models (Random Forest, XGBoost, Logistic Regression) for churn and acquisition, reducing churn **10%**, growing revenue **12%**, and contributing to a **\$33M** top-line impact
- Implemented Prophet and ARIMA forecasting within production pipelines, cutting forecast error **18%**; applied multi-armed bandit algorithms to marketing allocation, improving campaign ROI across a **2M+ customer** segment

Vodafone – Technology Department

Jul 2019 – Jul 2022

Assistant Manager - Data Analyst

Ahmedabad, India

- Consolidated **CRM**, billing, and usage data from **6+ enterprise systems** into structured datasets supporting analytics for a **10M+ subscriber base** across acquisition, retention, and fraud prevention
- Maintained **Power BI** reports and **KPI** dashboards tracking campaign performance across **4 product lines**, surfacing behavioral trends that lifted plan adoption **10%** quarter-over-quarter
- Designed and analyzed controlled **A/B experiments** on marketing offers across **500K+ customers**, measuring conversion and churn impact to improve campaign efficiency **12%**
- Modeled churn risk using **XGBoost** and Cox survival analysis on 3-year longitudinal data, translating model scores into targeted **BI** reports that improved retention **8%** in high-value segments

Siemens – Technology Innovation & Analytics Department

May 2017 – Jun 2017

Data Insights Analyst Intern

Chennai, India

- Standardized **100K+** ERP and transactional records into consistent business metrics, enabling reliable operational monitoring
- Conducted exploratory analysis and **KPI** validation, contributing to a **20% reduction** in manual reporting effort and improved process transparency

Technical Skills

Languages: SQL, Python, DAX, Power Query (M), PySpark, C, HTML/CSS, JavaScript

BI & Visualization: Power BI (DAX, RLS, Workspaces), MS Excel, BigQuery, Snowflake, Oracle SQL, Amazon Redshift

Cloud Computing: Azure Data Factory, Azure Databricks, AWS S3, EC2, EMR, Google Cloud Storage

Big Data & Analytical Tools: Hadoop, Hive, Spark, DBT, SparkSQL

Technologies & Orchestration: Linux, Jenkins, GitHub, Talend, Alteryx, Airflow, AWS Glue, Kubernetes

Education

University of Massachusetts Amherst MS Engineering Management (**AI Engineering**), MA Sep 2024 – May 2026

Jio Institute | Nanyang Technology Univ PGP in **AI & Data Science**, Mumbai, India | Singapore Jul 2022 – May 2023

Vellore Institute of Technology, Bachelor of Technology, Chennai, India Jun 2015 – May 2019