Sneha Sara Varghese

Application Specialist | Data Analytics | Power BI | Cloud Engineering
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LinkedIn | **GitHub** | **Portfolio**

Professional Summary

Application Specialist and Data Analyst with 3+ years of experience in business intelligence, reporting automation, and data engineering across public-sector and enterprise environments. Demonstrated success in developing Power BI dashboards, optimizing data workflows, and implementing scalable solutions using Azure, SQL, and Python. Strong background in requirements gathering, cross-functional collaboration, and delivering actionable insights to support business operations and decision-making.

Skills

- ***Programming & Databases:***
  Python | R | SQL (MS SQL Server, MySQL, Snowflake) | Git| Data Analysis
- ***Visualization & Business Intelligence:***
  Power BI | Tableau (familiar) | Excel (Advanced Formulas, Power Query, VBA) | ArcGIS (basic) | SSRS
- ***Machine learning & Modeling:***
  Regression | Classification | Clustering | Time-Series Forecasting | NLP(VADER, LDA, FinBERT) | Feature Engineering | Model Evaluation | Predictive Modeling
- ***Analytics & Statistical Methods:***
  Hypothesis Testing | A/B Testing | Time-Series Forecasting | Bayesian Methods | KPI Dashboards & Data Storytelling | Business Process Mapping | Data Transformation
- ***Data Engineering & Cloud:***
  Azure Data Factory | Azure Synapse | Azure Data Lake (ADLS Gen2) | Hadoop | Spark | ETL/ELT Pipelines | SSIS | SAP Business Objects
- ***Automation & Productivity:***
  Agile Scrum Methodology | PowerApps | Power Automate | Jupyter Notebook | RStudio | SharePoint | Microsoft Office 365 (Word, Excel, PowerPoint, Outlook)
- ***Data Governance:***
  Metadata Management | Data Lineage | Privacy Compliance | Data Quality Monitoring
- ***Soft Skills:***
  Cross-Functional Collaboration | Problem Solving | Analytical Thinking | Communication | Continuous Learning

Experience

City of Peterborough – Application Specialist
Nov 2025 – Present | Peterborough, ON, Canada

- Developed scalable Power BI dashboards that increased reporting adoption by 40% across city departments.
- Rebuild more than 7 legacy reports from SAP Business Objects into automated Power BI models, cutting manual reporting time by 30%.
- Improved data reliability by establishing stable pipelines across SAP, SharePoint, and PowerApps, achieving 99% dataset refresh success.
- Cleaned and validated departmental datasets, reducing data quality inconsistencies by 20%.
- Collected business requirements and delivered user-centered dashboards that accelerated leadership decision-making by 25%.
- Documented technical workflows and data models, improving cross-team onboarding efficiency by 50%.

City of Peterborough – IT Applications Student
May 2025 – Nov 2025 | Peterborough, ON, Canada

- Developed 3 interactive Power BI dashboards that improved KPI visibility and reporting efficiency for departmental managers by 30%.
- Built a custom form application in PowerApps, streamlining data intake and reducing manual entry time by 25%.
- Created automated email workflows in Power Automate that sent scheduled notifications to managers, reducing manual follow-up communication by 40%.
- Standardized and validated 50K+ records, improving data consistency and ensuring compliance across internal reporting systems.
- Documented workflows and reporting processes, reducing onboarding and knowledge-transfer time by 15%.

Accenture - Software Engineer

Sep 2021 – Aug 2024 | Hyderabad, TG, India

- Developed and maintained web applications in Agile/Scrum teams, ensuring adherence to coding and quality standards and improving overall project delivery speed by 25%.
- Performed root-cause analysis on application and data issues, implementing automation and fixes that reduced manual errors by 25%, and optimized SQL queries to cut report generation time by 15%.
- Authored technical documentation, process notes, and implementation guides to strengthen knowledge transfer, quality assurance, and continuous improvement across teams.

Education

M.Sc. Big Data Analytics, Trent University*, Peterborough, ON, Canada* | **GPA** 92% | *Sep 2024 – Dec 2025*

B.Tech. Electronics & Communication, GRIET, *Hyderabad, TG, India* | **GPA** 9.3/10 | *Aug 2017 – Jul 2021*

Certifications

- Microsoft PL-900 – Power Platform Fundamentals
- Microsoft SC-900 – Security, Compliance & Identity Fundamentals

Projects

AI Attitudes Survey Analysis at Trent University *Sep 2025 – Present*

Skills: Python (Pandas, NumPy, Seaborn, Matplotlib), NLP (VADER, LDA Topic Modeling), Power BI, R, TAM/DIT Frameworks, Mixed-Methods Analysis, Data Cleaning & Visualization

- Analyzed 948 responses using EDA, sentiment models, and LDA topic modeling to uncover adoption patterns.
- Delivered Power BI dashboards that improved stakeholder understanding of AI readiness by 35%.
- Automated text preprocessing steps, reducing manual coding time by 40%.

Azure Data Pipeline for Public Transit Delay Analysis *Aug 2025 – Sep 2025*

Skills: Azure Data Factory, Azure Synapse, ADLS Gen2, SQL, Parquet, Power BI, Medallion Architecture, Time-Series Forecasting

- Designed an end-to-end ETL pipeline that processed 1M+ transit records using Medallion architecture.
- Improved data processing speeds by 30% through optimized transformations and parallelization.
- Built forecasting dashboards that reduced manual reporting work by 25% for transit operations teams.

Urbanization & Development Visualization *May 2025 – Jul 2025*

Skills: Python, Pandas, GeoPandas, Plotly, Regression, Data Interpretation, Predictive Analytics Open Data, Bayesian Analysis

- Analyzed open urban data to visualize trends in urbanization and socio-economic development.
- Applied predictive analytics and regression models to support equity-focused urban policy insights.

E-commerce Sales & Customer Insights *Feb 2025 – Apr 2025*

Skills: Power BI, SQL, Hadoop, ETL, Data Cleaning, Data Transformation, Data Warehousing, Open Data, A/B testing

- Conducted segmentation and forecasting analysis that improved targeting accuracy by 12%.
- Built automated dashboards reducing weekly reporting efforts by 50%.

Sentiment Analysis of Financial News & Its Impact on Stock Trends *Feb 2025 – Apr 2025*

Skills: Python, Transformers, Fin BERT, NLTK, Sentiment Analysis, Git, Data Ethics, Data Strategy, Time-Lag Correlation

- Processed 5,000+ news articles using FinBERT to identify sentiment patterns linked to stock volatility.
- Achieved 78% correlation accuracy between sentiment signals and short-term price movement.

Awards

- Recognized for improving system efficiency and optimizing reporting workflows across client projects.
- Selected to contribute analytics and visualization support to the Provost's AI Working Group at Trent University.

Additional Information

- *Languages:* English (Fluent). French (Intermediate - conversational and reading proficiency).
- *Work Eligibility:* Authorized to work in Canada; open to hybrid or full-in-office roles as required.
- *Leadership & Extracurriculars:* Served as Class Representative during undergraduate studies, mentored peers, and junior colleagues.