

# NITIN SHIVAKUMAR

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## EXPERIENCE

**Genpact | Assistant Manager, Analytics, Data Science Specialist - Morris Plains, NJ** July 2024 – Present

- Accomplished savings of \$2,000 per patient for a cohort of 519,000 patients by deploying a Diabetes Progression Analysis predictive multi classification machine learning model with a 96% accuracy rate.
- Conducted A/B testing on 59,000 patients, revealing that those with emergency department visits were 25% less likely to take severe medication for a longer duration.
- Rebuilt the PDC forecasting model across five therapy areas using XGBoost, achieving a 13% improvement in SMAPE through advanced feature engineering and hyperparameter tuning.
- Achieved 3x lift in identifying high-risk diabetes patients by building an end-to-end XGBoost multi classification model using Databricks, PySpark, and scikit-learn, with 0.80 precision and 0.80 accuracy.
- Achieved an 18% increase in patient adherence, resulting in an estimated cost savings of \$1.5M annually, by developing a gap-in-care classification model with 93% accuracy while mitigating bias from protected classes to ensure fairness.
- Developed and automated ETL pipelines to generate actionable insights from machine learning model outputs, enabling post-model performance analysis and business impact measurement.
- Enhanced fairness in ML models by tuning bias mitigation algorithms, achieving an optimal balance between predictive performance and Adverse Impact Ratio across demographic groups.
- Deployed 4+ machine learning algorithms and models for clinical patient adherence, focusing on bias testing.

**Genpact | Business Analyst, Data Science - Bengaluru, KA, India** December 2021 – December 2022

- Optimized marketing budget allocation across advertising channels, increasing ROI by 12% by focusing resources on high-impact activities using a Mixed LM model in a market mix modeling project.
- Led A/B testing, resulting in a 30% higher conversion rate with the new method compared to the old one.
- Boosted model accuracy by 7% and drove \$3M in changes through an Impact Analysis on presentation modes for the marketing team.
- Performed ad hoc data analysis using SQL and built dashboards in Tableau to present findings to executive teams, reducing reporting time by 30%.

**Aptean | CS Analyst - Bengaluru, KA, India** October 2020 – November 2021

- Leveraged advanced Excel and SQL techniques to meticulously extract, cleanse, and manipulate customer data from diverse sources, resulting in a 10% enhancement in customer satisfaction metrics.
- Transformed the monthly cases architecture to a daily level, improving model accuracy by 5% using PySpark, SQL, and Python in Databricks.
- Enhanced Salesforce data visualization, driving a 25% increase in dashboard engagement.

## SKILLS

- **Programming Languages:** Python, SQL, MATLAB, R programming, PySpark.
- **Software Tools:** MS Excel, Jupyter, AWS, GCP, Github, Tableau, Power-BI, Snowflake, Databricks.
- **Technical Skills:** Data Analysis, Data Visualization, Statistical Analysis, Data Engineering, Data Mining, Dashboard Creation, A/B Testing, Exploratory Data Analysis (EDA), Deep Learning, Data Warehousing, LLM, ETL, Generative AI, ML Ops, cloud based ML and DL Frameworks, A/B Testing.

## EDUCATION

**University at Buffalo - New York, USA** January 2023 – May 2024

Master of Science in Engineering Science (Data Science) (GPA – 3.79/4.0)

Coursework – Statistics and Data Mining, Probability, Programming, Machine Learning, Data Model and Query Language, Computer vision and Image Processing, Algorithm Analysis and Design.

**Gandhi Institute of Technology and Management University - Karnataka, India** June 2016 – June 2020

Bachelor of Engineering (GPA – 3.6/4.0)