**Abhijit Deshpande**

Business Analyst

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**SUMMARY**

Results-driven Business Analyst with expertise in statistical analysis, advanced machine learning techniques, and financial aspects. Skilled in optimizing lending decisions and driving business improvements. Proficient in data-driven strategies for targeted marketing, customer acquisition, and retention. Seeking a role to leverage statistical modeling and machine learning expertise in the financial industry for data-driven solutions and business growth.

**PROFESSIONAL EXPERIENCE**

**Flagstar Bank** *April 2024-present*

*Sr. Business Analyst Troy, MI*

* Optimized outbound wire transfer processing time to under 20 seconds by targeting significant processing areas, positioning the company as an industry leader in rapid fund transfers and significantly enhancing operational efficiency.
* Spearheaded the development of a Power BI dashboards to streamline multiple complex STP wire processing reports, providing clear insights and reducing dependency on external reports, thereby enhancing business visibility and decision-making.
* Conducting Data Migration and Analytics projects ensuring precise and efficient data transfer while generating actionable insights for informed business decisions.
* Leading the ISO 20022 upgrade for payments system facilitating smooth migration from Legacy FAIM format to a new platform following international banking standards and compliance with industry regulations.

**Technology Credit Union** *Mar 2023 – April 2024*

*Business Analyst San Jose, CA*

* Developed a **conversion strategy model** for recommending the **optimal next steps** and targeting, which boosted high conversion leads, resulting in a 20% increase in monthly account openings and a 5x rise in customer engagement.
* Created and deployed a high-performing Retention Model with around 50% recall using Python and AWS Sage Maker, predicting customer churn and facilitating strategic interventions to maintain and strengthen customer relationships.
* Leveraged Python and SQL to enhance automation, boost efficiency, and deliver high-value data products.
* Acted as the Data Analytics department's representative, collaborating with cross-functional teams to enhance automation, boost efficiency, and deliver top-tier value products.

**University of Texas Arlington** *Jan 2021 – Mar 2023*

*Research Assistant**Arlington, TX*

* Engineered a state-of-the-art attention-based LSTM transformer encoder architecture for Financial Market signal forecasting, delivering performance with a 20% increase in accuracy and reducing false positives by 25%.
* Discovered a sophisticated data sampling strategy based on dollar volume observations and event-based sampling, resulting in a remarkable 30% improvement in model accuracy.
* Enhanced a path-based Triple Barrier methodology by incorporating two horizontal barriers for profit- taking and stop-loss limits, along with a vertical barrier to determine optimal positions.
* Led the development and deployment of a state-of-the-art neural network architecture in PyTorch, using Optuna's Bayesian optimization for a 60% training time reduction and 30% higher prediction accuracy, exceeding expectations.

**TECH SKILLS**

Programming: Python (Django, NumPy, Pandas, scikit-learn), SQL, SAS, HTML, CSS, Git

ML Algorithms: Time Series Forecasting, Logistic Regression, NLP, Clustering, Boosting trees, Neural Network

Statistics: Statistical Modeling, Linear Regression, A/B testing, Experimental Design, ANOVA

Software Tools: AWS, TensorFlow, PyTorch, Data Visualization (Tableau/Power BI)

Project Management: Agile, JIRA, Project Management

**PROJECTS**

**Factorial Design Study - Impact of Tag and Medium on RSSI (Skills: SAS, ANOVA, A/B Testing, Experimental Design)**

* Researched main and interaction effects, compared mean differences in Received Signal Strength Indicator (RSSI) value by conducting two factor ANOVA. Conducted statistical study to determine effects of medium on RFID tags performance.
* Resolved non-constant variance and non-normality issues in the model by applying the Variance stabilization technique, following a residual analysis, leading to more precise and dependable predictions.

**Opioid Risk Factor Identification using Machine Learning (Skills: Bootstrap Sampling, PCA, Decision Trees)**

* Developed a machine learning framework to identify influential risk factors of Opioid-based disorders using PROMIS scale data from UT Southwestern Medical Center.
* Achieved 90% recall with 40% precision in predicting high risk of Opioid influence using Logistic Regression, interpreting results, and optimizing threshold for maximum recall using probability.

**EDUCATION**

**University of Texas Arlington,** *May 2022*

*Master of Science in Industrial Engineering, GPA: 3.9 / 4.0*

**Shivaji University,** *May 2018*

*Bachelor of Engineering*

**CONFERENCES**

PASS: A NOVEL ELASTIC PERIODIC ACTIVATION FOR DEEP NEURAL NETWORKS *(*[*source*](https://github.com/abhijitdeshpande83/PASS-A-NOVEL-ELASTIC-PERIODIC-ACTIVATION-FOR-DEEP-NEURAL-NETWORKS/blob/main/Project/Papers/Periodic_Activation_for_MTS.pdf)*)*