# Kalyani Tekade

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## **EDUCATION**

Master of Science in Computer Science

Expected May 2025

Arizona State University, Tempe, AZ

Relevant Courses: Data Mining, Statistical Machine Learning, Data Processing at Scale, Time Series Analysis and Forecasting

4.0/4.0

Bachelor of Engineering in Electronics and Communication Engineering

May 2023

Ramaiah Institute of Technology, Bangalore, India

3.9/4.0

#### TECHNICAL SKILLS

Tools/Software

Certificates

**Programming Language/ Databases Data Analysis and Visualization** 

**Machine and Deep Learning Frameworks** 

: Python, Microsoft SQL Server, MySQL, PostgreSQL, Oracle DB

: Excel, Power BI, NumPy, Pandas, Matplotlib, Seaborn : Sklearn, Surprise, TensorFlow, PvTorch, Keras, SciPv

: SQL Server Integration Services (SSIS), SQL Server Analysis Services (SSAS), Microsoft Power Automate,

Git, Jira, VS Code, Google Colab, Jupyter Notebook

: Google Data Analytics (Link), Microsoft Excel (Link), Project Management by ASU (Link)

## PROFESSIONAL EXPERIENCE

## Graduate Service Assistant, Arizona State University, Tempe

January 2024 - July 2024

- Assisted the instructor in preparing the course material, addressed student queries and graded exams, assignments, and projects for over 200 students.
- Conducted data-driven analysis on past student performance using Excel, providing insights to the instructor that helped identify areas where students needed additional support, leading to a 20% improvement in overall class output.

## Data Analyst, Unilever, Bangalore

January2023 – June 2023

- Collaborated with cross-functional teams to design and optimize data collection process for the Unilever Technology Portfolio dashboard, leading to a 70% improvement in data standardization by ensuring consistent formats.
- Engineered an Excel system with auto-fill functions and dynamic drop-down menus, increasing data submission by 40% from over 50 global teams.
- Created pivot tables and charts to assign teams red, amber and green statuses based on the data filled, helping managers and stakeholders quickly identify discrepancies in data and take corrective actions.
- Constructed multiple comprehensive mock-up dashboards in Excel for requirement analysis, collaborating with managers and stakeholders, resulting in a 30% improvement in project alignment.
- Created a Power BI dashboard, leveraging the Excel system as a data source and using DAX-calculated fields to track KPIs, reducing manual processing time by 60%.
- Built an end-to-end automated data pipeline using Python script to extract data from multiple sources and consolidate it into a single Excel sheet, reducing Power BI's data processing time by 30% and improving report generation efficiency.
- Accelerated the completion of ad hoc requests using Excel and Python, enabling faster data-driven decision-making across teams.
- Implemented Jira timeline to track data update frequency across teams, offering stakeholders visibility into upcoming data refresh schedules.

## Data Analyst, Centre for Military Airworthiness and Certification, Bangalore

- Designed an ETL pipeline using SSIS to integrate HR data from multiple sources into SQL database improving data consistency by 50%.
- Built multidimensional cubes using SSAS for efficient aggregation and analysis of data, improving query performance by 30% and supporting workforce management decisions.
- Developed and deployed an interactive Power BI dashboard, seamlessly integrating real-time data from SQL database, reducing manual reporting efforts by 40%.
- Leveraged DAX functions to reduce the time required to interpret key metrics by 20%, enhancing decision-making and operational insights.
- Automated the initial hiring process workflow using Power Automate to collect new applications, consolidate them into a centralized SharePoint list, and trigger an automated email notifications for next steps.

#### **PROJECTS**

## Customer Segmentation: Clustering customer behaviors through RFM Modelling (Link)

August 2024

- Performed Exploratory Data Analysis and Feature Engineering with Python libraries to create RFM values from raw data and applied log transformation to address data skewness, improving clustering performance by 15%.
- Fine-tuned clustering models (K-means, K-means++, DBSCAN, Agglomerative) to optimize customer clusters, achieving a Silhouette Score of 0.47.
- Classified customers into four distinct segments (Best, At-Risk, New, Lost) enabling data-driven targeted marketing strategies.

## Book Advisory System: Personalized book suggestions using Recommendation model (Link)

- Engineered a content-based recommendation system leveraging TF-IDF Vectorizer to compute book similarities based on metadata, resulting in a personalized book suggestions based on user preference.
- Implemented collaborative filtering techniques, including KNNBasic and SVD using the Surprise library, to predict user-book ratings and provide recommendations across genres.
- Optimized the SVD model through GridSearchCV hyperparameter tuning, achieving a test RMSE of 0.827.

## Loyalty Booster: Optimizing Customer Retention with Ensemble Models (Link)

- Implemented classification models (Logistic Regression, Random Forest, AdaBoost, Gradient Boosting) utilizing Python libraries to predict customer churn, achieving an accuracy of 86%.
- Applied SMOTE for data balancing, refining the model's ability to detect at-risk customers, contributing to a 20% boost in predictive performance.
- Created a user-centric web application with Streamlit, streamlining the customer churn prediction process.

## Sales Predictor: Forecasting Daily Sales for Rossmann Stores (Link)

December 2023

- Built a sales forecasting system by applying regression models (Linear, SGD, Random Forest, and Decision Tree) using Python, achieving an R<sup>2</sup>
- Identified key drivers of sales through feature importance analysis, providing actionable insights that support the optimization of sales strategies.