Soumya Pednekar

(667) 216 - 1573 | soumyap1@umbc.edu | [Portfolio](#) | [LinkedIn](#)

EDUCATION

University of Maryland Baltimore County
Master's in information systems,   **Expected May 2025**
GPA: 3.65/4.00

University of Mumbai   **May 2023**
Bachelor in Information Technology,
GPA: 3.76/4.00

TECHNICAL SKILLS

Programming: C, C++, HTML, CSS, PHP/MYSQL, Python, JS, PL/SQL, Power BI, Django.
Software: Linux, Windows, WEKA, Microsoft apps.

PROJECTS

Amazon Sentiment Review Analysis   March 2024

- Classified Amazon reviews as positive, negative, or neutral to derive **business insights**.
- Conducted **exploratory data analysis (EDA)** using histograms, word clouds, and time series analysis, utilizing Python, Scikit-learn, Pandas, Numpy, Matplotlib, and Seaborn.
- Trained and evaluated **several machine learning models**, including Logistic Regression (~70% accuracy), Linear SVM (~71% accuracy), Decision Tree (68% accuracy, overfitting issues), and Random Forest (74% accuracy with cross-validation).
- Identified Random Forest as the most reliable model for sentiment classification, demonstrating the effectiveness of ensemble techniques over individual models.
- Provided actionable insights for product improvements and marketing strategies.

Music Recommendation System   March 2024

- Engineered an **advanced music recommendation system** utilizing Python and machine learning algorithms to analyze and process Spotify dataset, enhancing user music preferences and listening experiences.
- Implemented robust **data preprocessing** techniques, including **normalization and feature engineering**, to ensure high-quality input data, significantly improving model accuracy and performance.
- Deployed various machine learning methods such as **K-Means clustering, PCA, and t-SNE** for effective song grouping and dimensionality reduction, resulting in highly accurate and diverse music recommendations.
- Conducted extensive **data visualization and exploratory data analysis using Matplotlib, Seaborn, and Plotly**, uncovering valuable insights into trends, genre popularity, and artist contributions to optimize recommendation strategies.

LEADERSHIP EXPERIENCE

Retriever Essentials   **March 2024- May 2024**
- Assisted in organizing and distributing essential food items and resources to students in need.
- Collaborated with fellow volunteers to plan and execute initiatives aimed at raising awareness and support for food insecurity issues on campus.

Student Council VSIT Mumbai
Public Relation Head   **Jul 2021 - Apr 2022**
- Secured sponsorships exceeding $700 from major companies such as Bank of India and BRB Popped Chips, showcasing strong leadership in negotiation and exceptional communication skills.
- Led comprehensive market analysis and implemented effective marketing methodologies to attract prominent influencers and artists, resulting in a notable 30% increase in event participation through decisive problem-solving and rigorous research.

RESEARCH

National Student Research Conference (3rd Position) Issued by Research and Development Committee of Vidyalankar VSIT, Mumbai Mar 2023.
Research paper titled "ChatGPT Opportunities and Challenges" presented in V-Search, a National Level Student Research Paper Conference on Technology, Innovation, and Management as Enablers for Sustainable Development, organized by the Research and Development Committee of Vidyalankar VSIT on 3rd March.

CERTIFICATION

- **[Specialization in Machine Learning (DeepLearning.AI)](#)**   **June 2024**