

SOWMYA SIDDANKI

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EDUCATION

Master of Science in Data Science and Analytics (Expected Graduation: 2026)

Florida Atlantic University, Boca Raton, FL

-GPA: 3.945

Bachelor of Technology in Computer Science and Engineering (Data Science)(2020 - 2024)

Institute of Aeronautical Engineering, Hyderabad, Telangana, India

- Relevant Courses: Data Structures, Algorithms, Database Management, Machine Learning, Statistics

- GPA: 7.83

SKILLS

Python Programming | Power Bi | SQL | Machine Learning | Data Wrangling | HTML | Basics of Java | Collaboration | Team work | Adaptability

PROJECTS AND WORK EXPERIENCE

Development of Recommendation System Driven By Sentiment Analysis Using Machine Learning Techniques for the Applications of E-Commerce

Institute of Aeronautical Engineering

Developed a sophisticated recommendation system for e-commerce platforms by leveraging customer review data. Applied machine learning algorithms and sentiment analysis to enhance recommendation accuracy. Implemented filtering techniques to maintain product-to-product, user-to-product, and user-to-user relationships. Utilized Google Colab for development and Python for programming. Delivered a robust recommendation system that improved user experience and product discoverability.

Data Analytics Intern – Attrition Rate Analysis

2-month Virtual Internship and Training Program at Twilearn Edutech

Analysed employee attrition patterns using a corporate HR dataset to identify key resignation factors. Performed extensive EDA using Pandas, Seaborn, and Matplotlib to uncover trends in employee satisfaction, department workload, and performance ratings. Built and evaluated machine learning models (e.g., SVM, Logistic Regression, Decision Trees) to predict attrition risk. Delivered findings through data-driven insights and visualizations, supporting strategies to improve employee retention.

Customer Segmentation Using Unsupervised Learning

Independent Project – Summer Break, 3rd Year B.Tech

Designed a customer segmentation pipeline to group users based on behavioural patterns and purchase data. Applied unsupervised learning techniques, including **K-Means**, **Agglomerative Clustering**, and **PCA** for dimensionality reduction. Determined optimal number of clusters using **Elbow Method**, **Silhouette Score**, and **Davies-Bouldin Index**. Gained a deep understanding of clustering algorithms and successfully identified distinct customer profiles for targeted marketing strategies.

Sentiment Analysis on Amazon Alexa Reviews

Institute of Aeronautical Engineering

Collected and analysed reviews on Amazon data to understand public sentiment on various products. - Natural Language Processing (NLP) techniques were used to preprocess text data and build models. Performance metrics of the models are calculated and developed as an accurate model for analysis of reviews.

Worked as Part-time Home Tutor

Gandimaisamma, Hyderabad Telangana, India

Conducted personalized tutoring sessions for children in 8th and 9th grades, focusing on academic curriculum. Assessed student progress regularly and provided constructive feedback to help them achieve their academic goals. Fostered a positive and supportive learning environment, leading to significant improvements in student understanding and academic performance.

ACHEIVEMENTS AND PARTICIPATIONS

- **Amazon Summer ML Challenge**

Cleared the Amazon Summer Machine Learning Challenge test, earning an opportunity to attend an exclusive machine learning training session conducted by experts from Amazon. Gained knowledge and practical skills in machine learning techniques and applications.

- **Participation in Hackathons**

Participated in inter-college level hackathons which specifically focuses on development. These Hackathons build my potential to work in a team and also improved my skills in some specific areas like web development, machine learning.

CERTIFICATIONS

- IBM Skillsbuild Certifications
- Python Basics Certificate from HackerRank
- SQL Basics Certificate from HackerRank
- Data Manipulation Certificate from Udemy
- Pandas for Data Manipulation from Udemy