

LAKSHYA BHATIA

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Experience

MogliX

Jun 2022 - Aug 2022

Software Engineering Intern (Data Science)

NOIDA, India

- Engineered data pipeline architecture using Python and SQL, implementing ETL processes that improved data accuracy by 25%.
- Performed statistical analysis on employee database metrics using Python and SQL, identifying optimization opportunities that enhanced data processing efficiency
- Developed automated data validation and cleaning procedures using Python, ensuring data integrity across multiple database tables.

School of Computing and Augmented Intelligence(ASU)

Aug 2023 - Dec 2024

Research Assistant (C++ & Java)

Tempe, AZ

- Developed and analyzed student performance metrics using Python and Pandas, identifying areas for improvement in coursework materials.
- Created data visualizations using Matplotlib to track and present student progress patterns across different programming concepts.
- Led weekly lab sessions that offered students hands-on experience in C++ and Java programming, reinforcing classroom learning and improving practical skills

Education

Arizona State University

Aug 2021 - May 2025

BACHELOR OF SCIENCE, COMPUTER SCIENCE, Minor in BUSINESS

- **GPA:** 3.6/4
- **Coursework:** Data Structures & Algorithms, OOP, Statistics, Applied Linear Algebra, MACHine Learning, Accounting & Financial Analysis

Personal Projects

Deep Learning Loan Repayment Prediction

- Engineered and preprocessed features from a complex financial dataset of over 390,000 loans to prepare for modeling.
- Designed, trained, and evaluated a deep neural network using Keras and TensorFlow, achieving 90% accuracy in predicting loan repayment status.
- Utilized dropout layers for regularization to prevent overfitting and assessed model performance with classification reports and confusion matrices.

NLP Yelp Review Classifier

- Developed a text classification pipeline on a dataset of 10,000 Yelp reviews to distinguish between 1-star and 5-star ratings based on text content.
- Implemented text-specific preprocessing techniques and vectorized reviews into numerical data using TF-IDF with Scikit-learn.
- Trained and evaluated a Multinomial Naive Bayes model, achieving 92% accuracy in classifying review sentiment.

AI-Powered Movie Discovery MCP Server

- Engineered a full-stack, AI-driven movie discovery server in Python, featuring a robust PostgreSQL backend for data persistence and real-time integration with the TMDB API for movie data acquisition.
- Developed a hybrid recommendation engine combining collaborative filtering (user-rating correlation) and content-based filtering (genre/keyword similarity) to generate highly personalized movie suggestions.
- Implemented Natural Language Processing (NLP) capabilities using TextBlob to perform sentiment analysis on user reviews and to power a mood-based search engine that interprets conversational queries.

Skills

- **Languages:** Python, Java, C, C++, SQL, Matlab, Swift, SwiftUI
- **Technologies:** Jupyter Notebook, Git, NumPy, Pandas, Matplotlib
- **Machine Learning:** TensorFlow, Keras, Scikit-learn, OpenCV, NLTK, CNNs, RNNs, Scikit-surprise, TextBlob
- **Web Technologies:** Node, Flask, CSS, HTML, JavaScript, React