# Shraddha Bangad

## **EDUCATION**

Masters in Artificial Intelligence | Northwestern University, Evanston IL | GPA - 3.94

Sep 2021 - Mar 2023

Coursework: Machine Learning, Data Science, Artificial Intelligence, Deep Learning for Computer Vision, Natural Language Processing, Human Computer Interaction, Law and Governance of Artificial Intelligence

Bachelor of Engineering in Computer Engineering | Savitribai Phule Pune University, India

Jun 2017 - Jun 2021

Coursework: Data structures and algorithms, Object Oriented Programming, Database Management Systems

**Position of Responsibility:** Coordinated and managed a team of 20 people for Pune's largest college cultural festival with an estimated footfall of over 10000 people, for 2 consecutive years.

## **SKILLS**

Languages, Database: Python, R, C++, SQL | MySQL, Postgres

Libraries: Pandas, NLTK, NumPy, SciPy, Matplotlib, Seaborn, Scikit-learn, TensorFlow, Keras, PyTorch, OpenCV, D3.js

**Tools, Technologies, Methodologies, OS:** Docker | Kubernetes, Kubeflow | Git, GitHub | GCP, AWS | Databricks, Apache Spark | Jupyter Notebook, PyCharm, VS Code | Tableau, Google Data Studio | Agile | Linux, macOS, Windows

**Technical Data Skills:** Data Analysis, Data Wrangling, Data Engineering, Data Visualization, Machine Learning Models, Deep Learning Models, Unit Testing, A/B Testing

#### PROFESSIONAL EXPERIENCE

#### **M4A Foundation -** Machine Learning Engineer

Boston, MA | Jan 2023 - Present

- Spearheading the collection and curation of over **50** unique medicinal herb entries related to mental health, transforming them from diverse sources into structured datasets optimized for ML applications.
- Employing Databricks and Apache Spark to process and organize datasets, achieving a **60% reduction in data** preprocessing durations.
- Partnering with a team of **15 members** across different departments to drive a **40% improvement in the integration efficiency** of the data pipeline into ML models.

## John Deere - Co-op Machine Learning Engineer Intern

Chicago, IL | **Sep 2022 - Dec 2022** 

- Led a team of 5 in developing a regression model to maximize sugar yield, contributing to a **29% boost in customer revenue**; the team's efforts were recognized with the **Best Project Award** at Northwestern University.
- Optimized machine learning algorithms, leveraging a variety of regression models and fine-tuning each to **improve** predictive accuracy by 15%.
- Examined comprehensive data sets, successfully pinpointing key features that led to a 5% increase in sugar yield per acre via an OLS regression model.
- Collaborated with cross-departmental stakeholders to present data-driven findings, effectively communicating the business value of our machine learning model.

## PlanetTeach Labs - Machine Learning Scientist Intern

Pune, India | May 2019 - May 2020

- Formulated a recommendation system to furnish personalized recommendations to the users, culminating in a 15% surge in user engagement.
- Integrated advanced NLP techniques robust feature extraction from user review data, amplifying the model's performance by 20%.
- Orchestrated the architecture and deployment of a scalable data ingestion pipeline and feature store, achieving high efficiency and reducing data processing time by 30%.
- Coordinated with the product team to pinpoint and elevate critical user needs, ultimately driving a 25% uptick in user satisfaction level.

# **PROJECTS**

# Image Classification and Nutrition Retrieval (Python, SQL, Neural Networks, PyTorch, Matplotlib)

- Engineered an image classification system using CNN and RESNET 34 model to identify food and extract their nutritional values, achieving 98% accuracy and F1 score of 0.91.
- Designed a nutrition retrieval system employing SQL queries on the classification results, accelerating data retrieval speed by 25%.

# Chicago Police Department Sentiment Analysis (Python, SQL, Trifacta, Tableau, D3.js, NLP, Tensorflow, BERT)

- Architected an end-to-end data science pipeline, using PostgreSQL, Trifacta, Tableau, and D3.js, to scrutinize the sustainment rates of the complaints against Chicago police officers.
- Leveraged BERT for multi-label text classification to analyze and categorize police complaints, achieving an accuracy of 94.8%.

# Time Series Forecasting for Stock Prices (Python, Yahoo Finance API, Matplotlib, Time series analysis, Tensorflow)

- Extracted and preprocessed historical stock price data from the Yahoo Finance API using Python, conducting data cleaning and exploratory analysis to prepare for time series forecasting.
- Forecasted stock prices using multiple time series models, including ARIMA and LSTM, achieving a **MAPE of 2.5%**, indicating **97.5% accuracy** in predicting the next observations.