

Ukant Jadia

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EXPERIENCE

Data Science Intern

July 2024 – January 2025

Mente consultancies

Delhi

- Designed Python-based systems for **rolling feature updates**, signature storage, and **real-time predictions** without database dependency.
- Built Calendar and Rebase Marts in SAS to restructure time-series data, address seasonality, and ensure data quality.
- Developed **statistical variables** and **pipelines** in SAS Viya for machine learning models, enabling robust predictions.
- Created **SAS Visual Analytics dashboards** to monitor model performance and data drifts.

SWE Intern

May 2023 – August 2023

Cognus Technology

Udaipur, Rajasthan

- Contributed to live project **Gradding** using **Flutter**, **Dart**, and **Figma**.
- Designed intuitive on-boarding with **questionnaires** and document uploads, **handling return** cases seamlessly.
- Conducted in-depth market research on competing applications, analyzing **features** and identifying **gaps** to streamline on-boarding app development by **25%**.

TECHNICAL SKILLS

Tools/Platform : Vim, Git, Linux, MLFlow, EC2, S3, Docker

Languages : Python, C++, Shell, Dart

Frameworks : TensorFlow, Django, OpenCV, PyTorch

Databases : MySQL, SQL, FireStore

EDUCATION

Sir Padampat Singhania University

Udaipur, Rajasthan

Bachelor of Technology in Computer Science(AI-ML) GPA: 7.538

October 2020 – May 2024

PUBLICATION

ECG-Lense: Benchmarking ML & DL Models on PTB-XL Dataset

[Paper Link](#)

- Published research in IEEE on ECG classification advancements using deep learning.
- Designed CNN model architecture with accuracy of **80%** for classifying raw 12 lead ECG Statements.
- Solved class unbalancing with **SWT(Stationary Wavelet Transformation)** for augmentation the minor ECG classes
- Used **PTB-XL**(v0.3) ECG dataset, consist of **21K+** records taken from **18K+** patients for 10 seconds.

PROJECTS

Privacy-Preserving Fraud Detection using Federated Learning

Python, PyTorch, TensorFlow Federated

- Led a comprehensive **comparative analysis** of **Federated Learning**, **Centralized Learning**, and **Split Learning** approaches for detecting fraudulent credit card transactions.
- Built secure, privacy-preserving ML pipelines using **TensorFlow Federated (TFF)**, integrating **Differential Privacy** and **Secure Aggregation** techniques to protect data and model parameters during training.
- Simulated real-world client-server environments and evaluated model performance using key metrics such as **precision**, **recall**, **accuracy**, and **F1-score** across multiple client configurations.
- Part of an **International Research Internship (IRC)**, with a research paper currently in progress on the comparative study of federated learning methods for fraud detection.

Bloom's Taxonomy Level Detection using NLP and Machine Learning

Python, Scikit-learn, NLTK, TF-IDF, Flask

- Developed an NLP-based classification system to detect the **Bloom's Taxonomy level** of academic learning objectives, aiding structured curriculum design.
- Implemented support for all **six cognitive stages of Bloom's Taxonomy—Remember, Understand, Apply, Analyze, Evaluate, and Create**—widely used in Indian educational institutions for outcome-based education.
- Performed comprehensive text preprocessing using **NLTK** (tokenization, stopwords removal, lemmatization) and feature extraction via **TF-IDF Vectorizer**.
- Trained multiple classification models with **Scikit-learn** to accurately map learning objectives to their corresponding Bloom's level.
- Deployed a **Flask-based web application** for real-time prediction, enabling teachers to evaluate and categorize objectives with ease.

End-to-End MLOps Pipeline - Wine Quality Prediction

Python, MLflow, Scikit-learn, Docker, GitHub Actions

- Built a complete MLOps pipeline covering **data ingestion, validation, transformation, model training, evaluation, and real-time prediction**.
- Containerized the application using **Docker** for consistent development and deployment across environments.
- Implemented **CI/CD pipelines with GitHub Actions** to automate testing, model versioning, and deployment.
- Used **MLflow** for experiment tracking, model registry, and deployment to ensure reproducibility and monitoring.
- Developed a user-friendly **Flask** web app for live predictions, powered by modular, YAML-configured pipeline stages.

More Projects

ACHIEVEMENTS

Silver Medalist - Coding Hackathon, 2023. [Certificate](#)
Silver Medalist - All India IEEE Ideathon, 2021. [News](#)
Gold Medalist - All India IEEE SPSU Ideathon, 2020. [News](#)
Automate the Boring Stuff with Python Programming by Al Sweigart - on Udemy. [Certificate](#)
Docker Essentials - By IBM. [Certificate](#)
Data Science Training - on Internshala. [Certificate](#)

ACTIVITIES

Google Cloud Skill Boost: Career Readiness - Associate Cloud Engineer Path. [Certificate](#) [Credly](#)
Exploring Federated Learning as part of my International Research Internship. [Certificate](#)
Writing research paper on my Bloom Taxonomy Level Classification Project