

# Himani Gulati

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## EDUCATION

**Masters in Data Science**, Luddy School of Informatics - Indiana University Bloomington

Aug 2024 - May 2026

## PROFESSIONAL EXPERIENCE

**Lead Data Science Instructor**, Jovian

July 2022 - Aug 2023

- Developed and documented a **Python library** for inculcating LLM in Python scripts using React hook ([view](#))
- Led **Data Science Bootcamp** cohorts as **Instructor** and Manager
- Revamped and created curriculums for the Data Science Bootcamp and technical content for social media
- Created **50+** tutorials and [short](#) videos on **YouTube** on Python and Data Science (with **54K+** views)

**Associate Engineer Intern**, Symphony Talents

Apr 2022 - June 2022

- Set up Customer Relationship Management **Database** using MySQL
- **Implemented** a CRM to ensure its effective utilization
- Used **WordPress** to create websites(Job Portal) to ease user experience

**Assistant Instructor**, Jovian

Feb 2021 - Dec 2021

- Resolved **1000+** queries based on Python, Data Analysis, and Deep Learning via 1:1 calls and forum threads
- Evaluated and remarked on **1000+** course-based assignments and projects
- Created a repository and solution notebooks (knowledge base) for Data Science and Machine Learning courses

**Data Science and Machine Learning Intern**, The Sparks Foundation

Aug 2020 - Oct 2020

- Cleaned and pre-processed data with Pandas to build end-to-end ML projects covering Regression and Classification models.
- Implemented Model Training to improve model accuracy, targetting K-Means Clustering algorithms.

## PROJECTS

**Fine-tuning of CLIP and LLMs for Image Classification on Custom Dataset**

Dec 2024

- Developed custom image classification dataset by collecting and labeling 300+ images across three categories.
- **Fine-tuned a 500M+ parameter conversational language model** from Hugging Face's Transformers library using a custom dataset, tracking progress with **Weights & Biases (wandb)**.
- **Evaluated the LLM's responses** before and after fine-tuning, analyzing improvements in contextual understanding and generation quality.

**Vehicle Speed Anomaly Detection**

Nov 2024

- Developed **RNN** and **LSTM** models to detect anomalous vehicle speeds and predict future trends
- Engineered time-series features and implemented anomaly detection techniques for real-time monitoring
- Improved model accuracy and robustness through hyperparameter tuning and data preprocessing.

**Heart Disease Prediction Using Machine Learning**

Feb 2022

- Cleaned and analyzed a cardiovascular dataset from Kaggle with **70K** rows and **12** columns using Pandas
- Made use of Decision Trees and Random Forests to get a final accuracy of **74%** on the Validation set.

**Exploratory Data Analysis & Visualisation on Time Series Data**

Jan 2021

- Analyzed and visualized real-time Indian Market stock data from Apr-Sept 2020`.
- Techniques like moving averages, exponential smoothing, and autoregressive modeling were used.
- Created a **Buy/Sell signal** to indicate an action item.

**Facial Expression Recognition using Deep Learning**

Sept 2020

- **Preprocessed and cleaned** a `fer2013` dataset from Kaggle containing **40K** data points and **7** classes.
- Created and trained multiple neural network architectures like **FNN, RNN & CNN**
- Increased accuracy from 24% (FNN) to **65%** (CNN with ResNets)

## Skills and Certifications

- **Python for Data Science**
- **Deep Learning with PyTorch**
- **Machine Learning with Python**
- **Data Analysis and Visualization** with Python
- **Web Development** with Python and Flask
- **SQL and Relational Data Base Management**

**Tools and Libraries:** Sklearn, Numpy, Pandas, Pytorch, Beautiful Soup, Selenium, Word2Vec, NLTK, TextBlob, Folium, Matplotlib, Huggingface, TensorFlow, Computer Vision, OpenCV, Transformers

## LEADERSHIP/EXTRACURRICULAR

- Company Representative for Startup Expo (IIT DELHI) 2023
- Second Position in Smart India Hackathon (IIT, Kerala) 2019
- Captained the School's Girl's Cricket Team 2016
- Marketing campaign manager for Non-Profit Organization (For Stray animals) 2019-2021