

# Pratham Pritesh Shah

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## Education

### New York University | M.S. Computer Science

New York, NY • Design and Analysis of Algorithms, Foundation of Data Science, Artificial Intelligence.

Sept 2023-May 2025

### Vellore Institute of Technology | B.Tech Computer Science and Engineering

Vellore, TN, India • Algorithms, Web Dev, AI, ML, DL, OS, Linear Algebra, Statistics, DBMS.

July 2019-May 2023

CGPA: 8.54/10

## Technical Skills

**Programming languages:** Python, C, C++, Java, HTML, CSS, JavaScript, R, MATLAB, MySQL, PHP.

**Technologies:** TensorFlow, Pandas, NumPy, Matplotlib, Scikit-learn, Visualization, Neural Networks, Machine Learning, NLP.

## Work Experience

### New York University | Graduate Teaching Assistant: CS-GY 6543 & CS-UY 4543 HCI

Sept 2023-Present

- Succor Prof. Ray Lutzky by shepherding student inquiries, coordinating meetings, and managing announcements. New York, NY
- Provide essential feedback regarding course content and overall instruction for a class of 70+ students.

### Government of India | Business and Data Analysis Intern

Apr 2023-May 2023

- Collaborated on a social impact initiative led by Wing Commander Vijay Jadhav, evaluating market competition Vadodara, India and refining business practices.
- Employed **Python** to visualize 20+ years of data, creating a comprehensive business plan, lean canvas, and a compelling pitch deck.

### SEE Linkages | Data Science and Machine Learning Intern

Jun 2022-Sep 2022

- Preprocessed a dataset of 30+ products and 1000+ customers, enabling streamlined analysis. Vadodara, India
- Analyzed customer trends and product performance with Python, achieving over 90% accuracy using ML models like **Linear Regression, Random Forest, and Naive Bayes**.

### AIM-PLAST | Software Development Intern

Nov 2021-May 2022

- Developed an informative website using **HTML, CSS, and JavaScript**, serving 200+ clients, including global Vadodara, India corporations like ABB, Alstom, and Schneider Electric.
- Restructured and managed a **SQL** database for 500+ orders and quotations across 15+ products, boosting operational efficiency.

### IBM and Smartinternz | AI and Deep Learning Intern

Jun 2021-Aug 2021

- Pursued ML and DL techniques including **Regression, CNN, RNN, LSTM, and NLTK**. Hyderabad, India (remote)
- Leveraged **TensorFlow** to get high accuracy models (95%+) for sentiment analysis, object recognition, weather prediction, etc.

## Leadership

### International Society of Automation, VIT Chapter | Board Member

Jan 2021-Dec 2021

- Organized and led 15+ national and international workshops, events, and hackathons, collaborating with Vellore, India dignitaries and faculty advisors.
- Mentored 60+ junior core members, guided 25+ sophomores as UI/UX Lead, and contributed to interdisciplinary projects like Hackathon app and core management app.

## Projects

### Image-to-Text Converter That Detects Language and Provides a Translated Summary

- Engineered an integrated system leveraging **OCR and NLP**, utilizing EasyOCR and GoogleTrans, to recognize, translate, and summarize text, seamlessly accessible through a user-friendly website interface, with less than 1s response time.

### Malaria Detection Using CNN and IBM Cloud

- Implemented **CNN** on a blood smear image dataset with TensorFlow, achieving 96% malaria detection accuracy, and deployed the solution through **Flask** on IBM Cloud.

### Sarcasm Detection Using RNN and LSTM

- Compared accuracies (95% + each) for sarcasm detection using models like **RNN and LSTM** on a twitter sarcasm dataset.

### Auto-Image Colorization Using Autoencoders

- Incorporated **autoencoders** and **CNN** on the CIFAR-10 dataset to automatically colorize grayscale images. Achieved 93% accuracy.

### Raspberry Pi and cloud based smart security monitoring system for farms

- Executed motion detection using ultrasound sensor and Raspberry Pi camera, integrated with a machine learning model with 97% accuracy to classify potential threats and send corresponding alerts.

### WhatsApp Activity Monitor

- Innovated a website allowing user to upload chats with 10000+ messages and used **Django and matplotlib** to draw graphs and statistics of the no. of messages sent by a person in a WhatsApp group to monitor their activity.