Vedant Ambani

[vedantambani2023@u.northwestern.edu](mailto:vedantambani2023@u.northwestern.edu) (872)2355451 1715 Chicago Ave, Apt 616S, Evanston, IL 60201

# EDUCATION

**Northwestern University,** Evanston, Illinois

Bachelor of Science in ***Computer Science, Statistics (major), Data Science (minor)*** Anticipated 6/23 Cumulative GPA: **3.838/4.00**

# RELEVANT EXPERIENCE

**Pine Sports,** Boston, Massachusetts 9/21 - Present

## Data Analyst

* Analyzing MLB data using Sklearn and writing articles based on insights learned for fantasy team owners.

**Radisys Corporation,** Hillsboro, Oregon

***Machine Learning Intern*** 6/21 - 9/21

* Integrated a collision and near miss detection application deploying street camera footage with the world’s largest media server.
* Analyzed performance of various object detection models (YOLO, OpenVino for Smart City, RCNN) on CPU performance, profiling, and accuracy on fixed hardware resources to determine that OV for Smart City should be implemented in the application.
* Suggested and implemented running inference on every 5 frames of the video instead of every frame which improved profiling time by 34% and reduced CPU usage by 16%.
* Wrote code for object tracking section of the pipeline for pedestrians and vehicles in C++.
* Presented a demonstration of the smart city application integrated with the media server to the Chief Engineering Officer of Radisys utilizing an Ubuntu AWS instance which included a GUI demonstration of the video clip.
* Designed instructional content to explain the role of the various minstrels of the Digital Signal Processor to future interns.

**Intelligent Informatics Lab,** Evanston, Illinois 1/21 – 6/21

## Research Assistant

* Conducted research under Prof. Larry Birnbaum on an NLP project, ‘TweetCast’, that uses the tweet history of Indian users to predict which political party they are going to vote for in the upcoming elections.
* Developed machine learning models using the WEKA machine learning software which Prof. Birnbaum leveraged for the remainder of the project.
* Collected data from Twitter in five languages from over 400 user handles using the Tweepy Twitter API.
* Processed the data to remove noisy and incomplete data with Jupyter Notebooks.

**Jio CoE Machine Learning,** Hyderabad, India

***Computer Vision Intern*** 6/20 – 9/20

* Developed an end-to-end face detection, tracking, face recognition, and scene segmentation pipeline in Python to identify actors and actresses based on face embedding from the internet to enhance the user experience of Jio Cinema. Worked in a pair with a full time employee.
* Integrated computer vision libraries such as Pytorch, Keras, OpenCV and DLIB into the pipeline to reduce computational time and improve accuracy.
* Conducted testing of the pipeline every weekend and calculated accuracy based on F1 score, FAR, FRR metrics.
* Presented the pipeline with my teammate to the Chief Data Scientist and head of Computer Vision of the organization during my final week where it was approved for production and beta testing.

# LEADERSHIP

**Northwestern Sports Analytics Group,** *Committee Lead* 9/21 - Present

* Setting up a subcommittee to make a predictive a statistical model to predict outcomes of MLB games.

**Northwestern University Club Squash,** *President and Treasurer* 3/20 – Present

* Manage team expenses, fundraising, and organize the season schedule.

# SKILLS

**Programming Languages:** Python, C/C++, R, Matlab

**Tools:** VSCode, PyCharm, Jupyter Notebook, Google Colab, OpenVino, Sklearn, Weka,

**Language:** English, Hindi (Fluent), Spanish (conversational)