# Vaishnav Potlapalli

38 Stagg Street, Jersey City, NJ 07306

# Education

New York University Sep. 2023 – Dec 2024

Masters of Science in Computing, Entrepreneurship and Innovation

New York City, NY

Mahindra Ecole Centrale

 $\mathbf{Aug.2016}-\mathbf{May}\ \mathbf{2020}$ 

Bachelor in Technology in Computer Science

Hyderabad, Telangana

#### Relevant Coursework

• Deep Learning

• Machine Learning

• Computer Networks

• Analysis of Algorithms

• Computer Architecture

• Database Management

• Data Structures

• Distributed Systems

# Experience

MBZUAI

July 2022 – July 2023

Research Assitant (Advisor: Dr. Salman Khan)

Abu Dhabi, UAE

• Studied and implemented popular continual learning methods for video action recognition.

- Developed a new novel unified image restoration framework to restore images corrupted with multiple degradations using a single model
- Achieved State of the Art performance on popular image restoration benchmarks

Dhan AI April 2020 – April 2022

Machine learning Engineer

Hyderabad, India

- Developed and fine-tuned Natural Language Understanding models for tasks such as Intent and Entity recognition.
- Utilized an ensemble of BERT-based Classifiers to enhance the NER engine performance, resulting in a 12% improvement in internal benchmarks.
- Created and Managed API endpoints for the developed ML models using Django and TensorRT
- Maintained and optimized the software codebase to ensure efficient and reliable performance.
- Managed cloud infrastructure in Azure, ensuring scalability and availability of deployed ML services.
- Designed and developed ETL pipelines to efficiently collect and process data for the analysis of customer responses using MSSQL SSIS and Redis

## **Projects**

ROBOMUSE- Mobile robot platform | ROS, OpenCV, PyTorch, C++, Python September 2019 - January 2020

- Developed the visual module of a mobile robot platform with autonomous path planning and navigation. The visual module alongside LIDARs was used for SLAM.
- Built a stereo camera from scratch using two monocular cameras, and implemented stereo calibration and stereo matching to capture RGB-Depth Images
- Implemented YOLO and SSD models for object recognition, and adapted them to work on RGBD Images

PhysioLive: Virtual Assistant for Physio Therapy | Django, Tensorflow, C++, Python May 2018 - May 2020

- Developed an application that uses human pose estimation and anomaly detection to identify when a patient is practicing the wrong postures during physiotherapy exercises
- Utilized Openpose model to identify human poses during physio therapy exercises
- Developed the backend of the application using Django.
- $\bullet\,$  The project won the first place at MedTech Hackathon organised by Novartis.

### **Publications**

# PromptIR: Prompting for All-in-One Blind Image Restoration

NeurIPS 2023

Vaishnav Potlapalli, Syed Waqas Zamir, Salman Khan, Fahad Shahbaz Khan

#### Sketch3T: Test-Time Training for Zero-Shot SBIR

**CVPR 2022** 

Aneeshan Sain, Ayan Kumar Bhunia, Vaishnav Potlapalli, Pinaki Nath Chowdhury, Tao Xiang, Yi-Zhe Song

MediTables IIIT GREC 2021

Akshay Praveen Deshpande, Vaishnav Potlapalli, Ravi Kiran Sarvadevabhatla

## Technical Skills

Languages: Python, Java, C/C++, HTML/CSS, JavaScript, SQL

Developer Tools: Git/Github, VS Code, Azure Cloud

Technologies/Frameworks: Pytorch, Tensorflow, Transformers, TensorRT, CUDA, OpenCV, Django, Docker