

# Bhavya Shah

Ahmedabad, Gujarat, India

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## EDUCATION

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**Institute of Technology, Nirma University**

**Ahmedabad, Gujarat, India**

*B.Tech in Computer Engineering*

*Expected May 2021*

○ **Cumulative GPA: 8.37/10**

○ Relevant coursework: Algorithms, Data Structures, Machine Learning, Discrete Mathematics and Probability, Linear Algebra and Differential Calculus, Statistics and Probability

## SKILLS AND INTERESTS

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- Languages/technologies:
- C/C++ : Over 10000 lines
- Deep Learning API: Tensorflow, Keras : Over 10000 lines
- I love java espresso coffe

## WORK EXPERIENCE

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**Intern at Infivolve Inc.**

*July 2019 - Present*

- Designing and implementing algorithms for achieving Object Tracking in real time along with prediction of object characteristics for various sports
- Accomplished tasks: Trajectory generation, Ball release speed and release angle calculation

**Summer Research Intern at DAIICT, Gandhinagar**

*May 2019 - July 2019*

- Researched and implemented Facial Action Recognition using Hinton's Capsule Network in real time
- Achieved significant upscale in classification accuracy as compared to other existing architectures
- Under Dr.Suman Mitra, Dean of Academic Program at DAIICT Gandhinagar

**Team Arrow, SAE Nirma Collegiate Club**

*Jul 2018 - Jun 2019*

- Developed a model for Object Detection and Classification using Convolutional Neural Networks, other unsupervised learning techniques and Image Processing
- Managing Interop server requests
- Team took part in AUVSI-SUAS competition 2019 at Maryland, USA

## ACADEMIC PROJECTS

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**Medical Image Generation**

*July 2019 – Present*

- Investigating the task of medical image generation using Generative Adversarial Networks (GANs) for several domains like Retinal Fundi, skin lesions, brain segmentation, and CT-PET
- Under the guidance of Dr.Priyanka Sharma

**Obstacle Avoidance for Unmanned Aerial Vehicles (UAVs)**

*January 2019 - March 2019*

- Developed an algorithm based on geometrical transformations to detect and avoid obstacles in real time
- Implemented and tested on UAVs through Mission Planner software

**Facial Emotion Recognition**

*Jan 2019 – May 2019*

- Developed a real-time facial emotion recognition system on the FER2013 database using optimized convolutional neural network (CNN) model with minimum parameters and inspected the cases where CNNs failed
- Under the guidance of Dr.Ankit Thakkar and Prof.Preksha Pareek

**Natural Language Processing based information extraction**

*March 2019*

- o Developed a model to extract title, authors and abstract from research papers
- o Under the company : raxter.io

### **Deep Learning Research Group, Nirma University**

*Jan 2019 – Present*

- o Investigating several deep learning domains and research fields|| Under Dr.Priyank Thakkar, Associate Professor, CSE department, Nirma University

## **ACHIEVEMENTS**

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### **Idea Presentation Competition at SAC-ISRO, Ahmedabad**

*May 2019*

- o Awarded first prize for presentation on Artificial Intelligence for Space Missions

### **ML-Run competition at Nirma University**

*March 2019*

- o Runners up in Machine Learning Run at National level Techfest NuTech 2019

## **ONLINE COURSEWORK**

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- o Machine Learning by Stanford University by Coursera
- o Deep Learning Specialization by Coursera (All 5 Courses)
- o Machine Learning by NPTEL IIT Madras
- o Python Programming by NPTEL IIT Madras
- o Linear Algebra by Gilbert Strang