# Rishabh Nanawati

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#### EDUCATION

## Bachelor of Technology (Honors)

Graduated Aug. 2021

Mukesh Patel School of Technology, Management & Engineering (MPSTME)

NMIMS University, Mumbai, IN

- CGPA: 3.22/4.00
- Major: Computer Engineering
- Minor: Artificial Intelligence & Machine Learning
- ABET Accredited Program
- Courses: Research Methodology, Operations Research, C/C++ (Comp. Prog. I & II), Java (Prog. Lang. I),
  Python (Prog. Lang. II), Operating Systems, Data Structures, Design & Analysis of Algorithms, Statistics (Eng. Math. IV),
  Data Warehousing & Mining, Soft Computing, Artificial Intelligence

#### EXPERIENCE

Co-Founder Oct. 2020 - Present

Curabit (<u>www.curabit.in</u>)

Mumbai, IN

- Developed a RESTful API and a web application using Flask, ReactJS and MongoDB, that controls the interactive playback of the immersive 360 video being viewed. This project's live version is hosted using Azure and DigitalOcean services.
- Developed Virtual Cafe, a VR simulation to help users with their social anxiety where they can interact with virtual characters. Learned C# and development using Unity3D from scratch by myself to create this simulation.
- Led the operations of headset procurement and systems deployment
- Managed all internal IT solutions such as Asana, Google Workspace, Wix, etc.
- Part of the team that is conducting research on the effects of various VR simulations on those suffering from anxiety disorders.

#### **Publications**

Sariya, A., Nanawati, R. (2022)."Use Of Virtual Reality In Exposure Therapy And Other Psychological Treatment Methods" *Multimedia Computing Systems and Virtual Reality*, 1st ed., vol. 1, CRC Press, pp. 2-29, (<u>link</u>, pdf)

## PROJECTS

# Deep Compression using Autoencoder | FastAI, Scikit-learn, PyTorch

Apr. 2021

- Designed to compress data from 4 variables to 3 variables, and then to decompress it with minimal loss.
- Achieved MSE of only 0.00376 upon reconstruction.
- Part of evaluation task for CERN's Google Summer of Code program.

#### Generating natural captioning of images | Scipy, Keras & TensorFlow

Dec. 2020

- Define and trained an image-to-caption model, that can produce descriptions for real world images.
- Model consisted of a pre-trained InceptionV3 CNN that extracted features from images and an RNN that employed LSTM to first train on a thousand pre-captioned images and then generate captions for any given image.

## Sign Language Interpreter | OpenCV, Scipy, tcl/tk, Keras & Tensorflow

Apr. 2020

- A sign language interpreter that works on the image pre-processing techniques, KANE feature extraction and cosine distance matching.
- Aimed to connect with a Raspberry Pi, which could be worn as a necklace and used to translate American Sign Language gestures into displayable text.
- The model used a CNN and was able to predict the 44 characters in the ASL with a prediction accuracy >90%.

## TECHNICAL SKILLS & INTERESTS

Languages: C, C++, Java, Javscript, Python, R

Frameworks: Django, Flask, React

Developer Tools: Docker

Libraries: Tensorflow, Scipy, Turicreate/GraphLab, PyTorch, OpenCV

Areas of Interest: Machine Learning, Deep Learning

## CERTIFICATIONS

Machine Learning Specialization (4 courses)	Apr. 2020
University of Washington	Coursera
Sequence Models for Time Series and Natural Language Processing	Apr. 2021
$Google\ Cloud$	Coursera
Neural Networks and Deep Learning	May 2021
DeepLearning.AI	Coursera
Applied AI with DeepLearning	May 2021
IBM	Coursera

## COMMUNITY & LEADERSHIP

## Student Representative

Jul. 2018 - Jun. 2021

B. Tech. (Computer Engineering) - Class of 2021

NMIMS University

- Managed the schedule and logistics of various lectures and seminars.
- Delivered the class' feedback and suggestions to the head of department and the dean of the university, and brought about ensuing changes.

## Charge D' Affaires

Jul. 2020 - Jun. 2021

MUN Society MPSTME

NMIMS University

- Led a team of 140+ volunteers through the pandemic to conduct various workshops and events.
- Identified problems and requirements of the society, strategized solutions and drove various core departments into taking action.
- Subsequently served as the Vice President of Mumbai Yuva Sansad, India's largest online Youth Parliament, which was attended by over 400 delegates.

## Head of Department, Digital Creatives

Jul. 2019 - Jun. 2020

MUN Society MPSTME

NMIMS University

- Headed a department of 12 volunteers to serve the digital graphic requirements of the society, including social media posts, flexes, banners, ID cards, etc.
- Subsequently served as the USG Design & Media for Mumbai MUN, India's biggest MUN conference.

#### Executive, Digital Creatives

Jan. 2018 - Jun. 2019

MUN Society MPSTME

NMIMS University

• Created several designs to serve the graphic requirements such as social media posts, flexes and banners for the society, using Photoshop and Illustrator.

#### Awards & Accolades

Change Maker Award	Dec. 2021
American Society of Mechanical Engineers (ASME)	
Student Ambassador Award	Aug. 2021
NMIMS University	
2nd Prize in RunTime Error Coding Competition	Apr. 2021
The White Hat Cell MPSTME	
Top 50 Ideas for Healthcare Innovation	Jan. 2021
$ZS\ Associates$	
Resolution Fellowship	Jun. 2020
The Resolution Project (NY, USA)	
Team Leader, Top Marketer	Jun. 2019
Google's Online Marketing Challenge	