

# Nishant Rai

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## EDUCATION

### STANFORD UNIVERSITY

#### MS - COMPUTER SCIENCE

Specialization in A.I.  
Distinction in Research  
Sep '19 - Jun '21  
GPA: 4.1 / 4.0

### IIT KANPUR

#### BTECH - COMPUTER SCIENCE

Ranked 1<sup>st</sup> in the Department  
Apr '17 | Kanpur, India  
GPA: 9.9 / 10.0

## LINKS

LinkedIn: [nishantrai](#)  
Github: [nishantrai18](#)  
Google Scholar: [NishantRai](#)

## PROJECTS

### MACHINE LEARNING

Real-time Vehicle Recognition  
AutoML: Automated ML  
Image Caption Generation  
ML Language Translation  
Sarcasm Detection in Social Media  
Reinforcement Learning for Games  
Sentiment Analysis of Social Media  
GAN based Image Up-sampling  
Captcha Decoder  
Visual Question Answering  
Othello, Battleship AI Bot

### OTHERS

Distributed Fault-tolerant Pipeline  
End-to-End ADA Compiler  
NachOS Operating System  
Multi-Sense Word Representation  
Course Management Database  
Geometric Data Structures

## POSITIONS

### TEACHING

CS231N: CNNs for Recognition  
CS145: Intro to Databases  
ESC101: Intro to Programming

### MISCELLANEOUS

Core Team Academics, IIT Kanpur  
Programming Club, IIT Kanpur

## SKILLS

C++ • Python • Scala • C • GoLang  
PyTorch • TensorFlow • OpenCV

## EXPERIENCE

### WAYMO

Perception | Jul '21 – Current

- Research and development in the [Human Understanding](#) team
- Improve [understanding of human behaviors](#) around self-driving vehicles

### NURO

ML Perception Intern | Jun '20 – Sep '20

- Worked in the [Perception team](#) improving [obstacle detection](#) models
- Utilizing [multiple forms of model predictions](#) to improve performance

### STANFORD VISION LAB

Research Assistant | Sep '19 – Jun '21

- Performed research with [Dr. Juan Carlos](#) and [Dr. Ehsan Adeli](#)
- Developed approaches tackling [human action recognition](#) in videos and [multi-view video understanding](#)

### FYUSION

Computer Vision Intern | Jun '19 – Sep '19

- Designed approach to predict [3D object structure](#) from 2D images
- Allowed training ML systems [without any expensive 3D labelled data](#)

### RUBRIK

Software Developer | Jul '17 - Jun '19

- Worked on the central [data management module](#) powering Rubrik
- Parallelized the [cloud upload framework](#) resulting in a [3-4x](#) speedup
- Designed and built Rubrik's first [globally distributed SLA framework](#)

### TWO ROADS TRADING

ML Trading Intern | May '17 – Jul '17

- Designed and evaluated [ML trading strategies](#) based on stock price gaps

## RESEARCH

### C.A.R.I.S. LAB

ML Research Intern | University of British Columbia

- Develop safe [human-robot interaction](#) and [point cloud alignment](#)

### XEROX RESEARCH

ML Research Intern | Bangalore, India

- Designed ML algorithms for [multi-view learning](#). [Oral at ICPR '16](#)

### I.N.R.I.A.

Research Intern | Rocquencourt, France

- Researched algorithms for [shortest paths](#) in massive road networks
- Designed approaches for [analysis of social networks and large graphs](#)

## HIGHLIGHTED PROJECTS

Multi-View Learning for Human Action Understanding	CVPR '21
Self-supervised Learning for Video Understanding	CVPR '21
Unsupervised Inference of 3D Geometry from Images	CVPR '21
Deep Learning for Human Action Recognition in Videos	CVPR '17
Personality Trait Analysis through Videos	ICPR '16

## AWARDS

Gold Medal for <b>best academic performance</b> in graduating CS class	2017
Academic Excellence Award for <b>outstanding academic performance</b>	'13, '14, '15
Scholarship for <b>outstanding all-round achievement</b>	2016
Gold Medal for outstanding performance at <b>Indian Physics Olympiad</b>	2013
Gold Medal for outstanding performance at <b>Indian Mathematics Olympiad</b>	2013