

# Raunak Sinha

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## SKILLS

### PROGRAMMING

Python, C, Java, Javascript, Android  
HTML, CSS, Bash, Embedded C  
PyTorch, Keras, Tensorflow

### COURSEWORK

Machine Learning  
Statistical Machine Learning  
Advance Machine Learning  
Natural Language Processing  
Image Analysis  
Computer Vision  
Multimedia Computing and Application  
Semantic Web  
Designing Human Centered Systems  
Theory of Computation  
Graph Theory  
Data Structures and Algorithms  
Algorithms Design Analysis  
Computer Networks  
Data Base Management Systems  
Operating Systems  
Embedded Logical Design  
Technology and Society  
Organization and Anthology  
Competitive Programming

## EDUCATION

### B.TECH

INDRAPRASTHA INSTITUTE OF  
INFORMATION TECHNOLOGY, DELHI  
May 2019 | New Delhi, India  
Computer Science and Engineering  
CGPA: 8.27

### ARMY PUBLIC SCHOOL

May 2015 | New Delhi, India  
CBSE (12th)  
Percentage: 95

## ACHIEVEMENTS

National Science Olympiad Silver  
Medalist, State Level

## LINKS

Github:// [Sinha\\_Raunak](#)  
LinkedIn:// [raunak-sinha-7b9288106](#)

## RESEARCH EXPERIENCE

### IBM RESEARCH | RESEARCH ENGINEER ARTIFICIAL INTELLIGENCE

July 2019 - Present | Bengaluru, India

- AI for understanding code semantics
- Learning mapping between natural languages and code semantics
- Formulating & implementing novel approaches for improving state of the art

### UNDERGRADUATE RESEARCH | B.TECH THESIS, IAB Lab, IIIT-Delhi

Jan 2018 - July 2019 | New Delhi, India

Advisors: [Dr. Mayank Vatsa](#), [Dr. Richa Singh](#)

- Understating kinship facial feature hierarchy using deep learning models.
- Modelling learned feature hierarchy to generate faces of kin for individuals.

### IBM RESEARCH | SUMMER INTERNSHIP

May 2018 - August 2018 | Bengaluru, India

- Development of GAN toolkit. Supports multiple deep learning libraries. For increasing usability of GAN model for deep learning enthusiast. Primary contributor to the project (<https://github.com/IBM/gan-toolkit>)
- Presented work at IEEE Deep Learning Bootcamp, Bengaluru on 7 July 2018
- Framework: PyTorch, Tensorflow, Keras

### IBM RESEARCH | RESEARCH OSCP PROJECT

August 2018 - January 2019 | New Delhi, India

- Part of IBM Research's selective Open Science Collaboration Program (OSCP)
- Approaching sequential data generation problems through Generative Adversarial Networks (GANs). Generating sequence of images for text.

## PUBLICATIONS

- WACV, 2020 (Under Review)
- MLSys: Workshop on Systems for ML, NeurIPS, 2020 (Under Review)

## PROJECTS

### TRANSFERRING ADVERSARIAL DATA PERTURBATIONS August 2018 - July 2019

- Transferring learning on data perturbations. Adapting noise and attacks across models; Framework: PyTorch

### noWHINGE | COMMON COMPLAINT PORTAL FOR PUBLIC GRIEVANCES

January 2018 - April 2018

- Grievance portal built using core HCI components: Design, Prototype, Evaluate. [Blog](#); [Media](#); Framework: Python, Javascript, HTML, Django

### GITHUB - STACK OVERFLOW USER RECOMMENDATION SYSTEM September 2017 - December 2017

- Recommending users to Github repositories. Using Github and Stack-Overflow profile. NLP techniques for features. [Link to project](#); Language: Python

### DATABASE SYSTEM AT Bachpan Bachao Andolan | NGO

June 2016 - July 2016

- Assisted in technical data management and data completion for case records

## RESPONSIBILITIES

- Teaching Assistant: NLP, IIIT-Delhi (August 2018 - December 2018)
- Placement Team, IIIT-Delhi (January 2018 - August 2018)
- MIS Blackspine Publishing Pvt Ltd (August 2016 - March 2018)