

# Harshit Agrawal

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## EDUCATION

### NIT, TRICHY - B.TECH

MAJOR IN COMPUTER SCIENCE

MINOR IN ECONOMICS

Expected May 2022 | Trichy, India

Cum. GPA: 9.58/10.00

### K D AMBANI VIDYAMANDIR

Grad. May 2018 | Jamnagar, India

Class 12 : 94.8 %

Class 10 : 10 CGPA

## LINKS

GitHub: @HarshitCodex

LinkedIn: @HarshitAgrawal

Codechef: @codexharsh

Codeforces: @codexharsh

Hackerrank: @HELICpros

Medium: @HarshitAgrawal

## COURSEWORK

### UNDERGRADUATE

Deep Learning

Cryptography

Machine Learning

Algorithms & Data Structures

Operating Systems

Computer Networks

Android AppDev

Theory of Computation

Database Management Systems

Probability & Graph Theory

### CERTIFICATIONS | ONLINE

Machine Learning

Deep Learning Specialization

WebDev(Ongoing)

Python(Ongoing)

## SKILLS

### PROGRAMMING LANGUAGES

• C • C++ • Java • Javascript • Python

### FAMILIAR TOOLS & TECH

• Android Dev • Web Dev • ML

• Scraping • Matlab • Keras • Pytorch

• Scikit • Git • Scripts

### LANGUAGES

• English • Hindi

### CO CURRICULAR

• NIT Trichy Basketball Team 2018-19

• Jamnagar Basketball Team 2016-17

• District Cricket Team 2016-17

• CBSE Heritage Quiz 2016

## EXPERIENCE

### SPIDER R&D CLUB | ALGORITHMS AND MACHINE LEARNING

August 2019 - Present | NIT Trichy, India

- Worked on Enhanced Night Vision prototype using Deep Learning
- Conducted Algotrix algorithms workshop for over 100 college students
- Headed and worked as problem setter for various Coding Contests
- Participated in ICPC-2019 Online Round with team ApPy Fuzz
- Represented the club at many hackathons with a dynamic team of students

### VORTEX CSE TECHNICAL FEST | EVENT MANAGER

September 2019 - Present | NIT Trichy, India

- Part of versatile team of managers and computer science enthusiasts
- Ideated and organised various coding based events round the year for Vortex Technical Fest, including online events from home
- Judged and worked as a problem setter for Talkathon, Triathlon, ML and Coding Events

## PROJECTS

### DARKSIGHT | Github : DarkSight | SANGAM PROJECT

December 2019 - March 2021

- Worked on improving night-vision cameras
- Used Histogram Equalization and U-Net Deep Learning framework
- Worked with python libraries and automated few processes
- Used Samba server to ssh from Windows 10 to Raspberry Pi

### TAKEASTAND.ORG | Github : TakeAStand

January 2021 - January 2021

- Created a mini social media website to host and join protests
- Worked with MEN stack with HTML, CSS and JS for frontend
- Added Maps API for instant location service

### STOCK ANALYSIS | Github : ARIMA-NLP | STOCK SENTIMENT

September 2020 - November 2020

- Worked on ARIMA model to map Google S&P500 stock price
- Used log differencing and normal differencing to get stationary data
- Scraped stock related news using web scraping techniques in python
- Used NLP techniques with VADER lexicon to generate sentiment score of stock

### SAFE LANES | Github : Safe Lanes | PRAGYAN HACKATHON '19

December 2019 - December 2019

- Identified safest route between two points by ML algorithm
- Generated Crime score of each street through Crime dataset
- Used Random Forest Classifier as ensembling algorithm to predict crime

### HANDGUN DETECTOR | Github : YOLO Guns

June 2019 - August 2019

- Detection and drawing of bounding boxes whenever Handguns are found
- Worked to design YOLOv3 architecture using Darknet54 framework
- Used Convolutional Neural Networks and FPN with RPN

## ACHIEVEMENTS

|      |                  |  |
|------|------------------|--|
| 2020 | <b>Selected</b>  | SRFP Fellowship(IIT-M Computer Vision) |
| 2020 | <b>Top 15%</b>   | Transfinite Hackathon                  |
| 2020 | <b>Top 10%</b>   | Hackverse(NITK) Hackathon              |
| 2019 | <b>2nd Prize</b> | Pragyan Hackathon 2019                 |
| 2018 | <b>AIR 1024</b>  | KVPY Fellow (Issued by IISc Bangalore) |