## SIDDHARTH SHRIVASTAVA

## PhD Student from IIT Delhi

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## **WORK EXPERIENCE**

#### Research Intern

#### **IIT Bombay**

May 2019 - July 2019

Mumabai, Maharashtra, India

 Worked on Topic "Multi organ nuclei segmentation using deep adversarial training" under the supervision of Associate Professor Dr. Amit Sethi at MeDAL, IIT Bombay.

#### **Project Trainee**

#### Semi-Conductor Laboratory, Mohali (Department of Space)

## June 2018 - July 2018

Mohali, Punjab, India

 Experimented on the topic "Study and Development of Redundant Contact Anneal in RTP Tool" under the guidance of Scientist E Mr.Rajeev Rajan Kumar, SCL.

## **PROJECTS**

## Control or Autism - Classification using Convolutional Neural Networks on Functional MRI

March 2020 - May 2020

• Novel CNN Architecture || State-of-the-art (SOTA) results in Accuracy, Precision & Specificity using ABIDE RS-fMRI Data.

#### **Corpus Callosum Instance Segmentation Using Parcellation**

• Novel CNN Architecture || Ground Truth Generated on the Fly using Parcellation algorithm with Multi-Class Dice Score of 0.932.

#### **Delta U-Net**

• Novel CNN Architecture || Outperformed CE-Net in Corpus Callosum Image Segmentation.with a Dice Score of 0.9455.

# Comparative Study of Deep Learning Models for Segmentation of Corpus Callosum

**Aug 2019 - Nov 2019** 

• Compared CE-Net, MultiResUNet & Unet++ || CE-Net Architecture gave the best results with a Dice Score of 0.9311.

### **Multi-Organ Nuclei Segmentation**

May 2019 - Jul 2019

• Deployed GANs for segmenting histopathology nuclei images || Cycle GANs for Image-Mask pairs & Conditional GANs for Segmentation.

#### **Automatic Bus Ramp**

**d** Oct 2018

 Prototype for the aid of physically handicapped people || Rack & pinion mechanism using Arduino, Ultrasonic sensor & servo motor.

## **EDUCATION**

# BTech, Electronics & Telecommunication

#### **National Institute of Technology Raipur**

## August 2016 - June 2020

CGPA: 9.52

### PhD, School of IT

#### Indian Institute of Technology Delhi

math December 2020 - current

## **SKILLS**

Python Pytorch OpenCV Matlab
GCP AWS Paperspace git

## **ACHIEVEMENTS**

- Winner at Vigyaan, a part of Technical fest Aavartan'18 at NIT Raipur with a cash prize worth Rs 5000
- As a part of project V.I.S.I.O.N, team consisting of 5 members was awarded a seed grant of worth Rs. 25000 at Innovation Expo'18, NIT Raipur.

## **RESPONSIBILITY**

#### **Atal Innovation Mission**

₩ Oct 2017 - Dec 2018

Designed projects and organised workshops for higher secondary school students.

## COURSES

- Machine Learning Coursera
- Deep Learning Specialisation Coursera
- Convolutional Neural Networks for Visual Recognition (CS231n) - Standford
- Python for Data Science and Machine Learning Bootcamp - Udemy

## **PUBLICATION**

- 11<sup>th</sup> IEEE ICCCNT 2020 Control or Autism - Classification using Convolutional Neural Networks on Functional MRI
- 4<sup>th</sup> IEEE ICCMC 2020 Comparative Study of Deep Learning Models for Segmentation of Corpus Callosum