

Siddharth Nair

Email | LinkedIn | Github | Website

EXPERIENCE

TCS RESEARCH | RESEARCH INTERN

May 2020 – Jul 2020 | India

- Reviewed deep learning methods for B-cell prediction and CDR structure prediction.
- Implemented recent sequence models and comparisons with the existing methods.
- Analyzed the use of attention and NLP mechanisms for protein-sequence prediction.

MOBILITY & OPTIMIZATION LAB | UNDERGRADUATE RESEARCHER

May 2019 – Present | IIITD

- Detection of breakdown solely using GPS data using clustering and thresholding methods.
- Estimation of the fuel wastage due to breakdowns.
- Creation of GTFS for DTC buses for E-Ticketing.

PROJECTS

VOCO.AI | COURSE PROJECT FOR SPEECH RECOGNITION & UNDERSTANDING

Jan 2020 – March 2020 | IIITD

- Lead the development of the Cycle-GAN based approach for non-parallel voice conversion.
- Deployed a web-app that converts voice samples using GAN's trained on 4 different datasets (includes inter gender voice conversion)

IMAGE COLORISATION | COURSE PROJECT FOR DEEP LEARNING

Feb 2020 – May 2020 | IIITD

- Created a GAN based method with a modified loss function to colorize images.
- Assisted in creating a CNN based model.

SNEK.IO | COURSE PROJECT FOR MACHINE LEARNING

Sep 2019 – Dec 2019 | IIITD

- **Alcrowd challenge** for snake species identification.
- Development and analysis of a densenet model for identification.

ROAD MONITORING SYSTEM | COURSE PROJECT FOR INTRODUCTION TO ENGINEERING DESIGN

Feb 2018 – May 2018 | IIITD

- Detecting the road conditions using 3-axis gyroscopes.
- Measuring vehicle density on roads accurately using RFID's and displaying these data as a heatmap.

EDUCATION

INDRAPRASTHA INSTITUTE OF INFORMATION TECHNOLOGY

BTECH IN ELECTRONICS AND COMMUNICATION

Jul 2017 - May 2021

Delhi, India

CGPA: 8.13 / 10.0

SKILLS

PROGRAMMING

3+ years:

Python • C++

1+ years:

SQL • Matlab • CUDA • Bash

0+ years:

Go • Java

TECHNOLOGY

Git/Github • Machine/Deep Learning • Linux • Vim • Pytorch • Web Scraping

RESPONSIBILITIES

Teaching Assistant

TA for Introduction to Programming (2021)

Student Mentor

Mentoring freshmen and helping with their academic/social issues. (2020 - 2021)

UAV-IIITD

Autopilot and Computer Vision team. (2018 - 2021)

Placement Committee

Placement representative for the ECE branch. (2018 - 2019)

ACHIEVEMENTS

Dean's Award Innovation RD

Awarded for work on Long Range Fire Rescue Operations using Drones. (2020)

6th Rank

17th annual AUVSI SUAS competition 2019 out of 75 international teams. (2019)