

# Satyam Yadav

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## Education

### Indian Institute of Technology Roorkee

Roorkee, India

B.TECH. MINOR IN COMPUTER SCIENCE AND MAJOR IN ELECTRONICS & COMMUNICATION ENGINEERING (GPA-8.77/10)

Jul. 2015 - Exp. Jun. 2019

Activities and Societies: Artificial Intelligence and Electronics Society, IIT Roorkee Motorsports, National Service Scheme

## Internship Experience

### Samsung R&D Institute

Bangalore, India

SOFTWARE ENGINEERING INTERN

17 May 2018 - 13 Jul. 2018

- Did research about the current web-advertisement practices, countermeasures used to block them and determined the important features for detecting web ads.
- Developed data collection system and a machine learning based web-advertisement blocker as a replacement for the regular expression match-based blockers.
- Developed a chrome extension to automatically detect and block ads while a user is browsing the web.

### SPIRE Laboratory, Indian Institute of Science

Bangalore, India

RESEARCH INTERN

May 2017 - Jul. 2017

- Developed a Deep Neural Network based model for Text to Speech(TTS) systems under the guidance of Dr. Prasanta Kumar Ghosh
- Implemented the TTS system in Python(using the library Keras with Theano backend) that had trainable vocoder(Linear Predictive) and used the Variational Auto Encoder based approach for unvoiced frames.

## Projects

### Detection of Forgery in Human Faces in Videos

IIT Roorkee

UNDERGRADUATE PROJECT, PROF. VINOD PANKAJAKASHAN

Sep. 2018 - PRESENT

- Developing methods to detect face tampering in videos (swapped face or facial expressions) to counter the spread of falsified videos.
- Developed CNN and RNN based models to test their performance on datasets based on DeepFake approach.

### Sign Language Recognition

IIT Roorkee

LAB BASED PROJECT, PROF. DEBASHIS GHOSH

Jan. 2018 - Apr. 2018

- Created a real-time sign language character recognition pipeline for Anushruti academy for the deaf.
- Used existing architecture of YOLO for the sign language recognition.

### Self Driving Car

IIT Roorkee

HOBBIES CLUB, IITR

Dec. 2016 - Mar. 2017

- Developed the lane detection and guidance module of the self-driving car project presented in Shristhi 2017, annual tech festival of Hobbies Club, IIT Roorkee.
- Used computer vision to detect the position of lanes on the road and notify the controller to take action accordingly
- Used pre-saved maps and current GPS location for determining the best route.

### Data Acquisition and Display System for Electric Car

IIT Roorkee

IIT ROORKEE MOTORSPORTS

Nov. 2016 - Feb. 2017

- Developed a data acquisition system collecting and communicating sensor data among three Arduinos and Designed a dashboard displaying the relevant data.

### Where2Buy App

IIT Roorkee

MICROSOFT CODE FUN DO ONLINE

Feb 2017

- Developed backend for an Android app that lets you compare prices of products, like books, on e-commerce sites by clicking a picture of the product.
- The app displayed the prices and relevant links corresponding to the image clicked.

## Skills

### Programming Languages

C++, Python, Java, MATLAB

### Utilities

Linux Shell Utilities, Git, Keras, Django

### Relevant Past Courses

Data Structures, Discrete Structures, Database Management System

### Relevant Ongoing Courses

Design and Analysis of Algorithms, Operating Systems, Advanced Computer Architecture

### Languages

English, Nepali, Hindi, Maithili