# Prateek Sarangi

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Burla, Bargarh

#### **EDUCATION**

# Bachelor of Technology (B.Tech), Computer Science & Engineering (2017 - 2021)

Veer Surender Sai University of Technology

CGPA: 7.07/10

# XII (Senior Secondary), Science

Year of Completion: 2017

CBSE Board (Kendriya Vidyalaya, Bargarh)

Percentage: 89.60%

# X (Secondary)

Year of Completion: 2015

CBSE Board (Kendriya Vidyalaya, Bargarh)

CGPA: 10.00/10

#### **INTERNSHIPS**

# Research Internship

NIT ROURKELA (Rourkela)

May 2019 - Jul 2019

Video Summary and Synopsis Generation using deep semantic features.

Under the guidance of Dr Bhibudatta Sahoo, Associate Professor, NIT Rourkela.

# Research Internship

IIT, BBSR (Bhubaneswar)

May 2018 - Jul 2018

Machine learning technique and application.

Under the guidance of Prof. Dr Ganapathi Panda, Ex-Professor IIT Bhubaneswar.

# POSITIONS OF RESPONSIBILITY

Organiser - Introbotics 2018 VSSUT Burla

- School Vice Captain Kendriya Vidyalaya, Bargarh session 2015-16
- School Captain in Kendriya Vidyalaya, Bargarh session 2016-17
- Core technical member Robotics Society, VSSUT, Burla.

#### **TRAININGS**

# **Ethical Hacking From Scratch**

udemy (Online)

Aug 2019 - Sep 2019

https://www.udemy.com/certificate/UC-C5ZUFIE0/

# Javascript Masterclass

udemy (Online)

Jun 2019 - Jul 2019

Udemy course on Javascript

https://www.udemy.com/certificate/UC-3QQRYH3X/

# Embedded Systems Programming On ARM Cortex-M3/M4

#### Processor

udemy (Online)

May 2019 - May 2019

Udemy course on microcontroller coding.

https://www.udemy.com/certificate/UC-GDVM7KJA/

#### **R PROGRAMMING**

Coursera (Online)

Apr 2019 - Apr 2019

R programming for data science course provided by Coursera.

https://www.coursera.org/account/accomplishments/verify/CQCD2GWBM8YM

#### Data Scientist Toolbox

Coursera (Online)

Feb 2019 - Mar 2019

This course provides an introduction to the tools and ideas of data science provided by Johns Hopkins University through Coursera.

https://www.coursera.org/account/accomplishments/verify/UXD6FDNFDUXF

# Deep Learning

udemy (Online)

Feb 2019 - Feb 2019

A Visual Learners Guide to Building Neural Networks Using Keras. In this training, I have developed a deep neural network for prediction of the bike purchases given a dataset of past buyers with their social and economic background.

# Tansorflow/Python

udemy (Online)

Jan 2019 - Feb 2019

Building a machine learning model using TensorFlow python, custom deep neural network to transfer learning models.

https://www.udemy.com/certificate/UC-R93X3789/

# **PROJECTS**

# Virtual simulation of a computer using Java

Aug 2019 - Sep 2019

#### https://github.com/prateeksarangi/Virtual\_Box/settings

Simulating a compiler independent code base to act like a computer using java

#### Robo Soccer

Jan 2019 - Mar 2019

Robo Soccer is a domain designed to advance robotics and AI research through a friendly compitition. Small size league is one of the RoboCup league, focuses on intelligence multi-agent cooperation and control over highly dynamic environment.

#### Fish detection

Dec 2018 - Jan 2019

#### https://github.com/prateeksarangi/InnoBuzz

This is for the InnoBuzz hackathon conducted at VSSUT, Burla in the occasion of Samavesh 2019. This idea was to detect which type of fish and whether the fish is fresh or not using Image processing.

#### **Quad-Copter**

Nov 2018 - Dec 2018

Making a FPV drone using ArduPilot flight-controller.

#### Video Stabilization

Nov 2018 - Nov 2018

#### https://github.com/prateeksarangi/ImageStablizer

Stabilization of video feeds from a Webcam using Lucas-Kanade method of Optical flow. The objective is to stabilize the image obtained from a camera mounted on a four-legged bot to help proper implementation of the line following.

#### Pixelation

Sep 2018 - Oct 2018

#### https://github.com/prateeksarangi/pixelation\_NSSCKgp

Solving a image of maze(size 320x320) using image processing by the help of a overhead camera feedback.

#### Holonomic motion planning using encoder and LSA

Aug 2018 - Oct 2018

### https://github.com/prateeksarangi/Robocon\_Codes

Motion planning of holonomic robot using reverse kinematics so as to follow the line provided and play the game, It was applied in Robocon 2019 design of the final structure.

#### Database autotuning using large scale machine learning

Aug 2019 - Present

#### https://github.com/prateeksarangi/ottertune

This project uses machine learning algorithms to generate a recommendation for DBA to get the best possible knob settings

## Video Synopsis Generation

Jul 2019 - Present

#### https://github.com/prateeksarangi/vsum\_dsf

This project is about generating a synopsis of the video provided. So that we can distinguish the important part of the video and save us a lot of time while evaluating.

#### Video Summarization

Jun 2019 - Present

#### https://github.com/prateeksarangi/Video-Summarization-with-LSTM

This project is to generate a summary of the video provided using LSTM network.

Machine Learning Python

Intermediate Intermediate

C++ Programming Raspberry Pi

Advanced Intermediate

Linux R Programming

Intermediate Intermediate

MATLAB GitHub

Intermediate Intermediate

C Programming Java

Advanced Intermediate

JavaScript HTML

Intermediate Advanced

Deep Learning Cloud Computing

Intermediate Beginner

Arduino Amazon Web Services (AWS)

Intermediate Beginner

MySQL Natural Language Processing

(NLP)

Intermediate Intermediate

WORK SAMPLES GitHub Profile:

https://github.com/prateeksarangi

Blog Link:

http://prateeksarangi80.blogspot.com/?m=1

Other Portfolio Link:

https://www.linkedin.com/in/prateek-sarangi-23100a13b/

**ADDITIONAL DETAILS** 

- A strong enthusiast in the field of Robotics. Hands-on experience and on going work in Image Processing and Machine learning. Experienced in coding of Arduino, Raspberry pi and ROS(Robot Operating system).

  Skilled in languages C++ and Python.
- Currently looking for internships in the field of Industrial Robotics and Machine Learning to boost up my knowledge in this field.
- Gold Medallist in International Math Olympiad in 2015
- Finalist InnoBuzz hackathon 2019 organised by Hackerearth.
- Reference:-
  - 1. Dr Manas Ranjan Kabat, Head of Department, Computer Science and Engineering, VSSUT Burla
  - 2. Mr Vikash Sharma, Assistant Professor, BIT Mesra
- Gold Medalist in National Science Olympiad in 2015