

# SANGEET KUMAR MISHRA

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## WORK EXPERIENCE

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**Google Summer of Code 2018** Mercurial, Python Software Foundation Summer 2018

*Improving and Fixing grep of Mercurial SCM* Mentor: Yuya Nishara and Pulkit Goyal

Fixed and improvised the grepping system of Mercurial as per the Grep Plan |

Wrote properly tested codes using shell-script driven regression tests

[GSoC Blog Posts](#) | [GSoC Proposal](#)

**Machine Learning Team** Autonomous Underwater Vehicles, IIT Kharagpur Feb 2017 - Dec 2018

*Machine Learning, Computer Vision, Robotics* Guide: Dr CS Kumar

Implemented CA-CIFAR algorithm and HSV Thresholding to detect underwater objects

Implemented real time underwater buoy detection using SSD and Mobile Nets

Made the inference of models lightweight and suitable for the bot using Movidius Neural Computing Stick

**Software Developer** Octobus Sept 2018 - Present

*Vesional Control, Software Development* <https://octobus.net/>

Contributing to the development of Evolve extension

**Executive Head** Kharagpur Open Source Society, IIT Kharagpur October 2017 - Present

*Spreading Open Source awareness in the campus* Guide: Dr Anmesh Mukherjee

Contributed to the development of KWoC 2017 Website with more than 2700 registrations [KWoC 2017](#)

Mentored students in Kharagpur Winter of Code 2017 :

## SKILLS

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- Languages: Python, C/C++, SQL, JavaScript, Go
- Platform: Linux, Windows
- Robotics and Machine Learning: TensorFlow, Scikit Learn, PyTorch, Keras, ROS, OpenCV

## PROJECTS

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### Semantic Segmentation using Recurrent Convolutional Neural Networks

Guide: Dr Debdeep Sheet

Worked on using Recurrent Convolutional Networks to perform semantic segmentation of an Image.

### VySyBI

- Developed a Blind Assistant System on Xilinx PYNQ Board.
- Won 1st Prize in Xilinx Innovation Challenge 2019

### AudAn

- Worked on using Cognitive Analysis of students in a classroom to evaluate their performance.
- Qualified to Top 6 Nationally in the AI for Education theme in Smart India Hackathon 2019 by Govt. of India

**Other Projects** I spend some time working on small projects hosted on GitHub.

- Synisto : A Collaborative Filtering based application to suggest movie to users on MovieLens 1M dataset — [GitHub](#)
- Sign Language Detection : A Deep Neural Network based program to detect hand signs from 0 to 5 — [GitHub](#)
- K Means Compressor : KMeans Clustering based compression which achieves a 6 times reduction in size — [GitHub](#)

## EDUCATION

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**Indian Institute of Technology (IIT) Kharagpur**, West Bengal, India 2016 – 2020 (Expected)

Undergraduate Major in Civil Engineering

Relevant Courses:

|· Programming and Data Structures |· Probability and Statistics |· Design and Analysis of Algorithms|· Deep Learning Specialization

## EXTRA CIRCULARS

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- More than 80 hours of dedicated community service via National Service Scheme - IIT Kharagpur
- Secured Silver in Biz Quiz General Championship 2017 and represented LBS Hall of Residence
- Participated in General Championship Eastern Vocals 2017