# SANGEET KUMAR MISHRA

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Open Source Evangelist. Interest in Maths, Programming and Quantitative Finance

#### **EDUCATION**

#### Indian Institute of Technology (IIT) Kharagpur, West Bengal, India

2016 - 2020

Bachelors in Technology (Hons.) Civil Engineering

# **WORK EXPERIENCE**

#### Quantitative Research Analyst JP Morgan Chase and Co.

Jul'20 - Present

- Working on Ongoing Performance Monitoring and Back Testing of CCAR and CECL Models in Wholesale Credit

#### **Data Analyst and Visualization Intern** Anheuser-Busch InBev

May'19 - Jul'19

- Built an automated Data Visualization pipeline from the Data Lake using Python Scripting and SQL Queries
- Brought insights from the employees data and built tool to identify relevant clusters of concern
- Used Machine Learning models like Random Forests to find major drivers for Employee Attrition in the organization

## Google Summer of Code 2018 | Student Developer | Python Software Foundation

Summer '18

- Fixed and improvised the grepping system of Mercurial to add '-all' flag and 'grep' on history as per the Grep Plan
- Wrote properly tested codes using shell-script driven regression tests
- Improved functionality of 'diff' in Mercurial to show colorised in-line diff and better 'diff' output of tests suite results

## Autonomous Underwater Vehicles | Software Team, ML and Vision

Feb'17 - Mar'18

- Implemented a real time adaptive CA-CIFAR algorithm and HSV Thresholding on bot to detect underwater objects
- Implemented Deep Learning methods for buoy detection using Single Shot Multi Box Detector and Mobile Nets
- Made the inference of models fast and suitable for the bot using Movidius Neural Compute Stick and reduced the cost

#### VOLUNTEER EXPERIENCE

#### Google Summer of Code 2019 | Mentor Mercurial, Python Software Foundation

Summer 2019

- Mentored and helped the students new to Mercurial codebase getting familiar with it.
- Helped them bond with the Mercurial developers community, and resolved their technical and non-technical issues.

#### Kharagpur Open Source Society | Advisor and Former Executive Head

Oct'17 - Present

- Contributed to the development of KWoC 2017 Website with more than 2700 registrations KWoC 2017
- Mentored students in Kharagpur Winter of Code 2017 : Generative Adversarial Networks
- Successfully conducted the first ever Open Source Summit during Kshitij 2018 and in Kshitij 2019

## SKILLS AND EXPERTISE

- Skills: Software Development, Data Science/ ML, Leadership, Linux, Docker, Git/ Mercurial, DBMS/ NoSQL
- Languages: Python, C, C++, JavaScript
- Libraries: TensorFlow, Scikit Learn, PyTorch, Keras, ROS, OpenCV, FastAI, Flask

#### **PROJECTS**

# **AudAn: Smart India Hackathon**

- Developed AudAn, a web based app doing 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

#### **Semantic Segmentation using Recurrent Convolutional Neural Networks**

- Implemented research papers of GAN, DCGAN and GANs for Semantic Segmentation from scratch in Pytorch
- Developed Recurrent Convolutional Networks to perform semantic segmentation of an Image.

#### **VySyBl**

- Developed a Blind Assistant System on Xilinx PYNQ Board by building an Image Captioning and TTS pipeline
- Won 1st Prize in Xilinx Innovation Challenge 2019 among 11 different engineering institutes across India in KTJ'19

# Other Projects: 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