

# TUSHAR MITTAL



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tehy\_tushar



tusharmit



tehytushar

Data Science and Machine  
Learning Engineer

## Skills

### PROGRAMMING LANGUAGES

JavaScript

Python

C/C++

Shell

### TECHNOLOGIES

Scikit Learn

Numpy

Pandas

OpenCV

Tensorflow

Keras

Docker

GraphQL

jQuery

Linux

Selenium

Django

Flask

Git

NLTK

Spacy

Bokeh

SQL

### LANGUAGES

English

Hindi

## Achievements

Selected to attend GSoC Mentor  
Summit in Germany

Runner Up at HCL AI Hackathon

Finalist at Smart India  
Hackathon 2019

Selected as Mentor at Hack in  
the North (IIIT Allahabad) and  
Hack on Hills (NIT Hamirpur)

Contributed to Open Source  
Projects such as: Pandas,  
FOSSASIA, AboutCode, CloudCV

## Employment

### Google Summer of Code Intern

SPDX

Remote

Apr. 2018 to Aug. 2018

- The project was to build an online XML editor which can be used to create and edit the SPDX Licenses.
- It also included features such as making a pull request on GitHub, beautifying XML code, generating diff and validating it against the XML schema.
- Technologies Used: Django, SQL, JQuery, JavaScript, CSS, HTML

### Google Code-In Mentor

Tensorflow

Remote

Nov. 2019 to Current

- Finding bugs, suggesting enhancements and improving tutorials in the Tensorflow project.
- Helping the school students to contribute to the project and reviewing their work.

## Projects

### Image Caption Generator

- Trained a deep learning model on the Flickr 8k dataset, to generate captions for an image.
- The model had an encoder-decoder architecture with LSTM, embedding, convolution and dense layers.
- Technologies used: Tensorflow, Keras, Numpy, Scikit Learn, PIL

### Tourism Sentiment Analysis

- Predict ratings on different aspects of restaurant and extract keywords from reviews.
- Analyse review images using CNNs with Transfer Learning.
- Technologies used: Pandas, NLTK, Keras, Tensorflow, Gensim, Fasttext

### Interpretable Machine Learning

- Implemented CAM, GradCAM and ScoreCAM algorithms to visualise parts of image that CNN focuses on.
- This helps to understand why the CNN is giving out a certain prediction..
- Technologies used: Keras, Tensorflow, Pandas, Numpy

### Dogs Images Generation using GANs

- Trained DCGAN and CGAN model on the Stanford Dogs Dataset to generate new images of dogs.
- Technologies used: Python, PIL, Numpy, Keras, Tensorflow

### E-Commerce Scraper

- A CLI tool to scrape prices, ratings and images of the given product from Amazon, Flipkart and Snapdeal.
- Technologies used: Selenium, BeautifulSoup, Python

## Education

### Kanpur Institute Of Technology

Bachelor of Technology (B.Tech) Computer Science 2020

CGPA: 8.0/10.0

Aug. 2016 to Current

### Coursera

Machine Learning by Andrew Ng

Deep Learning Specialization

June 2018 to Feb. 2019

## Activities

### Intel AI Student Ambassador

Intel AI Ambassador are student technology leaders, empowered to build machine learning and AI communities on their campus and share their deep knowledge with their fellow students. Organised workshops and seminars on AI related topics.

### GitHub Campus Expert

GitHub Campus Experts is a community of students aimed at building technical community at their campus.

Completed training modules provided by GitHub. Organized event, workshops and meetups at various colleges.

## Volunteering

### GirlScript Summer Of Code · Mentor

Remote

Current

GSSoC is an annual programming competition aimed at helping students to get started with open-source contribution. Guided students to get started with open source. Review their work and provide feedback. Help students with their doubts.

### Kanpur Python & PyData Meetup · Organizer

Kanpur

Current

Giving talks on topics related to Python, Data Science, Machine Learning and various frameworks in Python. Helping people with their doubts and bugs, and building a community of people who love to code and are eager to learn.