ANIMESH GUPTA

animesh-007 | animesh721 | animesh-007.github.io | agupta33_be19@thapar.edu

EDUCATION

Thapar University, Patiala
B.Tech. in Electronics and Computer Engineering — *Aug. 2019 – June 2023 (expected)*
CGPA: 8/10

ACHIEVEMENTS

- Top 42% in Google Landmark Recognition Challenge — *2020*
- Top 6.5% in JEE Mains — *2019*

WORK EXPERIENCE

Research Engineer (Part-time), Minus Zero — *Patiala, India*
Supervisor: CEO & CTO Gagandeep Reehal — *Oct. 2020 – Present*

- I am working on the road segmentation problem, where I am using FChardnet as my base architecture and training with an **Indian driving dataset**.
  1. Worked on creating and preprocessing the initial dataset.
  2. Modified and improved the base architecture to make it work according to our use-case.

INTERNSHIPS

Research Intern, Indian Institute of Information Technology — *Allahabad*
Supervisor: Dr. Mohammed Javed — *Nov. 2020 – Jan. 2021*

- During the Internship, I explored scene text detection problem and found that arbitrary shape text detection in natural scenes is an extremely challenging task.
- Unlike existing text detection approaches that only perceive texts based on limited feature representations
- Worked with state of the art model Textfusenet. In this, I have worked by applying DCT (direct cosine transform) compression to the images and trained the model on the compressed images.

PUBLICATIONS

1. **Double-Hard Debias: Tailoring Word Embeddings for Gender Bias Mitigation** [code, pdf]
   Haswanth Aekula, Sugam Garg, **Animesh Gupta**
   ML Reproducibility Challenge 2020 - under Review

PROJECTS

Google Landmark Recognition 2020

- Developed a classification model for predicting landmark labels using the GLDv2 dataset.
- Improved accuracy of the Google DELG model by optimizing the hyperparameters. [Link]

I'm Something of a Painter Myself

- Developed a GAN that generates 7,000 to 10,000 Monet-style images. [Link]

AI for Blind

- Developed a classification model for predicting seven emotions (angry, disgusted, fearful, happy, neutral, sad, and surprised) using the FER-2013 dataset. [Link]

VAE and GAN on MNIST

- Implemented basic GAN and different types of autoencoders in PyTorch on the MNIST Dataset.[Link] [Link]

OPEN SOURCE CONTRIBUTIONS

OpenStreetMap-iD
- To make new geo-locations accessible to new mappers added several new presets. [PR]

CircuitVerse
- Added improvements (like modals, dark mode bugs) for enhancing the use of GUI interface.[PR]

d2l-study-group
- Maintainer of the study group with daily discussions with the students of our college on the book **Dive into deep learning**. [PR]

DSC (Thapar University)-officialWebsite
- Improved repository readability for new user navigation. [PR]

Mini-Conf
- Virtual conference toolkit. Added video links and issue tracker bots. [PR]

TECHNICAL SKILLS

- **Languages:** Python, C, C++
- **Frameworks:** Pytorch, Tensorflow, Tensorflowjs, ml5.js
- **DevOps:** Docker, Heroku, FloydHub
- **Frontend:** Javascript, React, p5.js

RELEVANT COURSEWORK

- **Mathematics:** Linear algebra *(Gilbert Strang's 18.06)*
- **Courses:** Machine Learning (Coursera Certificate), Neural Networks and Deep Learning (Coursera Certificate)

REFERENCES

Gagandeep Reehal *Patiala, India*
CEO & CTO, Minus Zero, Patiala
Email: gagandeep@minuszero.in

Dr. Prashant Singh Rana *Patiala, India*
Assistant Professor, Department of CS,Thapar University Patiala
Email: prashant.singh@thapar.edu

Dr. Mohammed Javed *Allahabad, India*
Associate Professor, Department of IT, IIIT Allahabad
Email: javed@iiita.ac.in