

ANIMESH GUPTA

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EXPERIENCE

GirlScript Summer of Code

Intern

Remote

March 2021 – June 2021

- Added architectural examples on various Computer Vision tasks.
- **Face-X**: Added NasNet and Xception model architecture for Face Recognition. [PRs]
- **CoinShift-Imaging-Box**: Added YOLOv5 example for the object detection. [PRs]

Minus Zero

Research Engineer (Part-time)

Patiala, India

October 2020 – March 2021

- Worked on the road segmentation problem for autonomous cars in India.
- Used FCHarDNet as base architecture and trained on the *Indian driving dataset* (10k images and 34 classes).
- Worked on creating and preprocessing the initial dataset.
- Modified and improved the base architecture to make it work according to our use-case.

Indian Institute of Information Technology

Research Intern

Allahabad, India

November 2020 – January 2021

- Explored scene text detection problem.
- Doing literature review showed that unlike existing text detection approaches, arbitrary shape text detection in natural scenes is an extremely challenging task.
- Worked with the state of the art model TextfuserNet. Experimented with JPEG compressed images and then finetuned the model on the compressed images.

EDUCATION

Thapar University

Bachelor's in Electronics and Computer Engineering

CGPA: 8.0/10

Patiala, India

August 2019 – June 2023 (expected)

PUBLICATIONS

1. [RE] Double-Hard Debias: Tailoring Word Embeddings for Gender Bias Mitigation [code, pdf]
H. Aekula, S. Garg, A. Gupta
Arxiv preprint, 2021

ACHIEVEMENTS

- Weights & Biases Machine Learning Reproducibility Challenge, Spring 2021 Grant worth \$500. 2021
- Got selected for Prairie/MIAI Summer School 2021, INRIA, France. 2021
- Got selected for Gaussian Process Summer School 2020, Sheffield University, UK. 2020
- Won Bronze Metal for Kaggle Notebook in I'm Something of a Painter Myself challenge. 2020
- Top 42% in Google Landmark Recognition Challenge. 2020
- Top 6.5% in JEE Mains 2019.

OPEN SOURCE CONTRIBUTIONS

pyprobml

- Added new figures in python for Kevin Murphy's book "*Probabilistic Machine Learning: An Introduction*". [PRs]

OpenStreetMap-iD

- To make new geo-locations accessible to new mappers added several new presets. [PRs]

CircuitVerse

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

d2l-study-group

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

DSC Thapar University

- Improved repository readability for new user navigation. [PRs]

Mini-Conf

- Added video links and issue tracker bots for virtual conference toolkit. [PRs]

PROJECTS

ZSL Generative

- An Open Source Zero Shot classification toolbox based on PyTorch. [[Link](#)]

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 (Kaggle Challenge)

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

AI for Blind (College Hackathon)

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

PROFESSIONAL ACTIVITIES

- Volunteered in ICLR 2021.
- [OpenMined](#) Community Navigator.

TECHNICAL SKILLS

- **Languages:** Python, C, C++
- **Frameworks:** PyTorch, TensorFlow, TensorFlow.js, ml5.js
- **DevOps:** Docker, Heroku, FloydHub, Weights & Biases

RELEVANT COURSEWORK

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