Adrish Dey

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Education:	**Netaji Subhash Engineering College** B.Tech in Computer Science Kolkata, India	Jul 2017 - Jul 2021

Workshop Accepted:

- **(Spotlight)** Topo Sampler: A Topology Constrained Noise Sampling for GANs; **Adrish Dey***, Sayantan Das*; NeurIPS 2020 Topological Data Analysis and Beyond

Research Interests: Topological Data Analysis, Generative Models, Manifold Learning, Variational Methods, Learning Theory

Research Experience:

Independent Research | Remote Sep 2020 - Present

- Manifold Learning for Generative Models w/ Dr. Bastian Rieck (ETH Zurich)
- Topological Data Analysis w/ Dr. Bastian Rieck (ETH Zurich)

Opaltech.ai | Remote May 2020 - Aug 2020

- SLAM / 3D Scene Reconstruction w/ Dr. Ryan Alimo (NASA JPL)
- Simulation and Ray Tracing for Synthetic data Generation w/ Dr. Ryan Alimo (NASA JPL)

Rephrase.ai | Bangalore, Karnataka, India Dec 2019 - Feb 2020

- Data Augmentation / Generation for Core Text to Speech Engine
- Domain translation of Lip Expression of Human Head Model
- Second-order Optimization for Neural Networks

Open Source:

Google Summer of Code (TensorFlow) May 2019 - Aug 2019

- Implemented ESRGAN (https://arxiv.org/abs/1809.00219) and published the trained model to TensorFlow Hub (w/ Sachin Joglekar): https://tfhub.dev/captain-pool/esrgan-tf2/1
- Knowledge Distillation of ESRGAN for **near-real-time** video frame super-resolution on 2GHz CPU (w/ Sachin Joglekar): (https://github.com/captain-pool/GSOC/tree/master/E3_Streamer)
- Added Support for displaying AutoGraphed tf.functions, with TensorFlow saved_model_cli (w/ Vojtech Bardiovsky) (https://github.com/tensorflow/tensorflow/pull/30752)
- Fixed bugs (PR: #1504, #663. #488, #242, #238, #184, #161) and added datasets to TensorFlow Datasets (https://github.com/tensorflow/datasets/pulls)