

Adrish Dey

adrishd.cse2017@nsec.ac.in | +918159052134 | <https://captainpool.me>

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

Workshop Accepted:

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

Research Presentations:

- **Spotlight Talk:** Topo Sampler: A Topology Constrained Noise Sampling for GANs; To appear at NeurIPS 2020 Workshop on Topological Data Analysis and Beyond

Research Interests: Generative Models, Bayesian Learning, Geometric Deep Learning, Topological Data Analysis, Manifold Learning

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_Streamers)
- 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>)