Adrish Dey

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Experience

Applied Research Intern | Rephrase.ai | Bangalore, Karnataka, India
December/2019 – February/2020

- Implemented Levenberg-Marquardt Optimizer, optimized for handling sparse Jacobians, required by the core feature extractor.
- Worked on lip expression translation between unpaired expression vectors, using adversarial training on cycle consistency.

Google Summer of Code Student | TensorFlow | Online
May/2019 - August/2019

- Added Support for displaying Auto Graphed tf.functions, to TensorFlow saved_model_cli
- Implemented Enhanced Super Resolution GAN (https://arxiv.org/pdf/1809.00219.pdf) and published the trained model on TensorFlow Hub (https://tfhub.dev/captain-pool/esrgan-tf2/1)
- Implemented GAN Distillation (https://arxiv.org/pdf/1902.00159.pdf) on Enhanced Super Resolution GAN and built a Proof of Concept Media Player capable of performing video frame super resolution at 5 frames / second

Reference: https://summerofcode.withgoogle.com/archive/2019/projects/5063116054855680/

Open Source Contributor | TensorFlow | Online
May/2019 - Present

- TensorFlow Hub - https://github.com/tensorflow/hub/commits?author=captain-pool
- TensorFlow Datasets - https://github.com/tensorflow/datasets/commits?author=captain-pool
- TensorFlow - https://github.com/tensorflow/tensorflow/commits?author=captain-pool

Education

Netaji Subhash Engineering College, Kolkata West Bengal, India
Bachelor of Technology in Computer Science and Engineering

Technical Skills

Experience in Machine Learning Research, Computer Vision, Bayesian Machine Learning, Computer Vision, Software Engineering

Frameworks: TensorFlow, Pytorch, Numpy, Pandas, OpenCV
Languages: Python, Bash, C++, C#

Extra Curriculars

- **President of Official Linux User Group of College**
- **Student Advisor of Entrepreneurship and Development Cell**

Projects

INVADO/ NASA SpaceApps Challenge Zonals - September 2018

At this Hackathon, we presented a proof of concept product that uses live crowd sourced data to predict the current whereabouts of various wild animals for helping tourists and governments. The idea was to build an easy to use app, where people can inform a machine learning model about the location of various wild animals, which inturn can give a softmax probability of specific animals for a given region. This project won us the second prize among 150 teams, and helped us proceed to the nationals of NASA SpaceApps Challenge. I was responsible for building the Machine Learning Model and Exposing it as a REST API through Flask.

PASSGRUGAN/ ACM B.Tech Awards - March 2018

Built, a Generative Model for generating passwords using GRU Units trained adversarially, using a Wasserstein Loss function with gradient penalty. This project aimed to capture the temporal dependency among characters of passwords, which the Original PassGAN Paper by Hitaj et.al failed to capture. The preprint paper was selected for final presentation at B.Tech Project Awards, 2018 organized by ACM chapter of Kolkata, India.