Rwiddhi Chakraborty

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Email: rwiddhi.chakraborty96@gmail.com **GitHub**: https://github.com/rwiddhic96

Research interests
Interpretable deep learning and graph representation learning

Education

Università della Svizzera italiana Lugano, Switzerland
MSc. Artificial Intelligence September 2019 – August 2021
GPA: 9.04/10 (Summa Cum Laude)

Heritage Institute of Technology Calcutta, India
B.Tech in Electronics and Communication Engineering 2014 – 2018
GPA: 8/10

Relevant Coursework

Advanced Topics in Machine Learning (Grade: 10/10)	2020
Deep Learning Lab (Grade: 10/10)	2019
Optimisation Methods for Large Scale Problems (Grade: 9.5/10)	2020

Publications and Preprints

A Review and Refinement of Surprise Adequacy
Rwiddhi Chakraborty, Michael Weiss, Paolo Tonella
DeepTest workshop at the ACM/IEEE International Conference on Software Engineering, 2021.

RC2020 Report: Learning De-biased Representations with Biased Representations
Rwiddhi Chakraborty, Shubhayu Das
ML Reproducibility Challenge 2020

Research experience

Software Institute, USI
MSc. Thesis Advisor: Professor Paolo Tonella Oct 2020 – Jun 2021
White box out of distribution supervision in convolutional neural networks. Empirical evaluations of a variety of techniques to perform out of distribution detection, and open source software implementations.

Krause Group, Institute of Computational Science, USI
Mentors: Professor Rolf Krause, Dr. Cyrill von Planta Jun 2020 – Aug 2020
Implemented Multilevel optimisation algorithms on residual neural networks to speed up training times on image classification tasks. Benchmarked against standard optimisation approaches.

Videoken, Inc. Bangalore, India
Research Intern Sep 2018 - Mar 2019
Implemented deep learning architectures in image segmentation to extract slide segments from lecture videos to enhance text extraction. Designed computer vision heuristics to better approximate the slide location in frames.

Projects

USICoins

Distributed Algorithms 2: Course Project — Fall 2020

An Ethereum smart contract to create a decentralised application where students transact a virtual currency to book study rooms on campus. Implementation using Solidity, Ganache, HTML and Javascript

Code: https://github.com/ipmach/USIcoins

Paxos

Distributed Algorithms 1: Course Project — Fall 2020

Implementation of Paxos, a protocol to solve consensus in asynchronous distributed systems

Code: https://github.com/ipmach/DistributionProject

Mrs. B Recycling — November 2019

USI Hackathon — Lugano

Build a trash classifier to automate the process of trash division in recycling bins across Lugano

Demo: https://zealous-colden-f8d2ea.netlify.app

Skills

Programming

Python (Numpy/Scipy/OpenCV/Pandas/Seaborn/Matplotlib/PyTorch/Tensorflow /Keras), MATLAB, HTML, CSS, Javascript

Document Creation

Microsoft Office Suite

LaTeX