

Aditya Rastogi

Education	M.Tech in Computer Science and Engineering, Indian Institute of Technology, Kharagpur May 2021 (Expected) GPA 9.46/10
	B.Tech in Computer Science and Engineering, Indian Institute of Technology, Kharagpur May 2020 GPA 9.46/10
Internships	Summer Intern , Goldman Sachs Bangalore, India May'20-Jun'20 <ul style="list-style-type: none">Developed an end-to-end system to classify tickets received through emails, using multiple tf-idf based regression and decision-tree based classifiers, for various product spaces.
	Visiting International Research Student , University of British Columbia, Vancouver, Canada May'19-Jul'19Mentor: Prof. Matei Ripeanu <ul style="list-style-type: none">Developed a pipeline to maximize lateral work reuse in the problem of approximate pattern matching in graphs in a distributed systems setting.Worked with node2vec and visualized the changes in neighbourhood node embeddings while injecting specific patterns in them.
	Visiting Student Researcher , University of Sydney, Camden Campus, Sydney, Australia Dec'18-Jan'19Mentor: Dr. Mehar Khatkar <ul style="list-style-type: none">Designed and compared different deep learning pipelines for detecting facial landmarks in different fish species, as a part of automatic monitoring of health of fishes in aquariums.
	Summer Intern , IIT Kharagpur, Kharagpur, India May'18-Jul'18Mentor: Prof. Swanand Khare <ul style="list-style-type: none">Developed a python application to demonstrate the rejection sampling technique.Worked on dimensionality reduction using PCA for sensor anomaly detection and observed clusters in the time-series data.
	Relevant Projects
	M.Tech Project , Improvements in Learning using Attention Advised by Prof. Partha Pratim Chakrabarti and Dr. Aritra Hazra <ul style="list-style-type: none">Increased the accuracy of self supervised models by incorporating unsupervised visual saliency in the data augmentation pipeline. (Publication in progress)Developed a novel algorithm that uses visual explanations from GradCAM to come up with a hierarchy of relevant sections in the input, using which deep learning models can be made more robust.
	B.Tech Project , Deep Learning - Self Supervised Learning, Explainability and Robustness Advised by Prof. Partha Pratim Chakrabarti and Dr. Aritra Hazra <ul style="list-style-type: none">Discussed class-invariant mutations for out-of-distribution detection, and implemented various existing techniques for OOD detection.Experimented with techniques like reducing color depth as a defense against adversarial examples.
	Virtual Avatar Creation for Video Conferencing Systems <ul style="list-style-type: none">Developed a python application which creates your virtual avatar using facial landmarks and appearance-based gaze estimation, for use in real-time video conferencing systems. Compared the latency and performance of the developed model with the first-order motion model paper.
Medium Blog Writer	<ul style="list-style-type: none">Reproduced the SimCLR and MoCo-V2 self supervised algorithms on Fast.AI datasets.Wrote articles on saliency maps; policy iteration and Monte Carlo control in Reinforcement Learning.Wrote a detailed article on the GNU Toolchain.
Technical Skills	C, C++, Python, JavaScript, PyTorch, Linux