

Mrinal Anand

DEEP LEARNING · NATURAL LANGUAGE PROCESSING · ADVERSARIAL LEARNING · ROBUST MACHINE LEARNING

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Education

Indian Institute of Technology (IIT) Gandhinagar

Gandhinagar, India

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING (CPI: 8.50/10) [[degree](#)]

2017 - 2021

Selected Publications

[[Peer-Reviewed](#)] Pratik Kayal, [Mrinal Anand](#), Harsh Desai, and Mayank Singh **Tables to LaTeX: Structure and Content Extraction from Scientific Tables** In *Proceedings of International Journal on Document Analysis and Recognition (IJ DAR-22)* [[paper](#)]

[[Peer-Reviewed](#)] [Mrinal Anand](#), Pratik Kayal and Mayank Singh, **Adversarial Robustness of Program Synthesis Models**, In *Advances in Programming Languages and Neurosymbolic Systems Workshop*, at **NeurIPS-21** [[paper](#)]

[[Peer-Reviewed](#)] [Mrinal Anand](#), Pratik Kayal and Mayank Singh, **AutoCoder: Leveraging Transformers for Automatic Code Synthesis**, In *Advances in Programming Languages and Neurosymbolic Systems Workshop*, at **NeurIPS-21** [[paper](#)]

[[Peer-Reviewed](#)] [Mrinal Anand](#)^{*}, Nidhin Harilal^{*}, Chandan Kumar^{*}, and Shanmuganathan Raman **HDRVideo-GAN: Deep Generative HDR Video Reconstruction** In *Proceedings of 12th Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP'21)* [[paper](#)]

^{*} indicates equal contribution; complete list of publication [here](#)

Awards & Honors

2021	Awarded Professor Nitish Thakor Scholarship , Grant of 1500 USD for overall academic excellence	IIT GN, India
2021	Awarded LaunchPad Fellowship-21 , Grant of 2500 USD as pre-seed funding for SZone (co-founder)	IIEC, India
20'15-21	Academic Excellence , Secondary(10/10), Senior Secondary(92.3%), and Dean's list in 3/8 semesters of UG	IIT GN, India
2020	Best Research Proposal Award , Eastern European Machine Learning Summer School (EEML-2020)	Virtual, Europe
2020	Awarded Financial Grant (EEML-2020) , Waived registration fees and selection process for EEML-2021	Virtual, Europe
2020	Selected by University of Saskatchewan (cancelled due to covid-19 pandemic) , Research Internship	Sask., Canada
2020	Selected by Aalto University (cancelled due to covid-19 pandemic) , International Research Program	Espoo, Finland
2018	Bronze Medalist , Secured 3 rd position among 23 IITs in 7 th Inter IIT Tech Meet for Eye in the sky challenge	IIT Bombay, India

Selected Experiences

Machine Learning & Software Engineer

Enphase Energy

Bangalore, India

MANAGER: [ML] VIDYASAGAR NALLAPATI, [SDE] VINOD TIGADI

July. 2021 - Present

- As a part of an agile development team, I worked on developing features and maintaining the Enlighten Homeowner app across multiple sprints. The app empowers the user to track their systems analytics and performance data. App rating ([App Store](#) → 4.7 & [Play Store](#) → 4.2)
- Collaborated with the product team to understand a feature's user and business needs. Executed the features utilizing strategic engineering procedures to develop and ensure quality deliverables efficiently.
- Worked on developing solar energy forecast API for the Enphase App. Given the historical energy data and system configuration, we attempt to forecast the energy produced by the Enphase System for the upcoming days. Further, we use this forecasted data to build optimal appliance scheduling policies.

Research Intern

Computer Vision and Intelligence Research Lab (CVIR), IIT Karagpur

Kharagpur, India

SUPERVISOR: DR. ABIR DAS

May. 2019 - Aug. 2019

- Build a multimodal architecture which can inpaint an object in an image, given a corresponding natural language expression of an object.
- Implemented a two-stage pipeline, Stage-1 generates the segmentation mask using the query, and Stage-2 does the inpainting using the mask.
- Reduced the inpainting artifacts (blurring and distortion) by implementing contextual attention layer. Final presentation is available [here](#).

Data Analyst Intern

Ernst & Young

Bombay, India

MANAGER: RAJESH RIZWANI

Dec 2018 - Jan 2019

- Identified the root causes for major skill gap which leads to youth unemployment in south Asian countries.
- Minimized the overall expenditure invested in vocational training programs conducted by government and private sectors.

Note: Complete list of experiences is available [here](#)

Technical Knowledge

Programming Languages: Python, R, MySQL, C, C++, MATLAB, Javascript, HTML, CSS.

Tools and Frameworks: Git, PyTorch, Keras, Tensorflow, OpenCV, LaTeX, Django, Flask, Vim, React-js, Ruby on Rails.