Pulkit Gera

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EDUCATION

MPI INFORMATICS
PhD
Ongoing | Saarbrücken,Germany

IIIT HYDERABAD
B.Tech + MS by Research in CS
September,2022 | Hyderabad,India
CGPA: 8.77 / 10.0

COURSEWORK

RESEARCH
Statistical Methods in AI
(Teaching Assistant 2x)
Computer Graphics
Computer Vision
Mobile Robotics
Optimization Methods
Multivariate Analysis
COMPUTER SCIENCE
Data Structures
Operating Systems
Database Systems
Algorithms
Advanced Computer Networks
Unix Tools and Scripting

SKILLS

PROGRAMMING
Languages
Python • C++ • Shell • Javascript
GO • Matlab • SQL • Ruby on Rails
Libraries
Mitsuba 2 • COLMAP • PyTorch •
Tensorflow • OpenGL
Technologies
Github • Docker

ACHIEVMENTS

AWARDS
•Dean's List for Academic Excellence
•Secured first position in Megathon,2019
in Big Data Track
•Finished 3rd in AIcrowd Blitz,out of
350+ teams
POSITIONS
•Head Finance, E-Cell,IIIT
Hyderabad(2019)
•Web Admin, E-Cell,IIIT
Hyderabad(2018)

PUBLICATIONS

Casual Indoor HDR Radiance Capture from Omnidirectional Images. Pulkit Gera, Mohammad Reza Karimi Dastjerdi, Charles Renaud, P. J. Narayanan, Jean-François Lalonde. British Machine Vision Conference 2022

Neural view synthesis and appearance editing from unstructured images. Pulkit Gera, Aakash KT, Dhawal Srikonda, PJ Narayanan. Indian Conference on Computer Vision, Graphics and Image Processing 2021

RESEARCH

VISUAL COMPUTING AND AI,MPI-INF | PhD Student, Advisor : Dr Vladislav Golyanik,Dr Christian Theobalt
October 2022 - | Saarbrücken,Germany
Working on relighting and reanimating dynamic human scenes.

CENTER FOR VISUAL INFORMATION TECHNOLOGY,IIIT-H | Research Assistant, Advisor : Dr P.J. Narayanan
May 2018 – September 2022 | Hyderabad, India
Formulated a neural rendering framework for view synthesis and appearance editing of a scene from unstructured images captured under known illumination.

UNIVERSITE DE LAVAL | Research Intern, Advisor: Dr Jean Francois Lalonde
May 2021 – September 2022 | Quebec City, Canada
Internship under MITACS Globalink. Designed a neural representation of HDR radiance field of an indoor scene that can be captured casually. Presented at OmniCV2022,CVPR-W

INFORMATION RETRIEVAL AND EXTRACTION LAB,IIIT-H | Independent Study, Advisor: Dr Vasudeva Verma,Dr Balaji Vasan Srinivasan
July 2020 – June 2021 | Hyderabad,India
Leveraged visio-linguistic transformers like OSCAR to encode visual and textual information and GPT as decoder to summarize long multimodal news articles.
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EXPERIENCE

SEGMIND SOLUTIONS | Deep Learning Intern
Aug 2020 - Oct 2020 | (Remote)Bangalore,India
- Ported multiple object detection and semantic segmentation algorithms into a single framework
- Reduced lines of code to setup an object detection framework to 5 lines.

DREAMVU INC | Computer Vision Intern
June 2019 – July 2019 | Hyderabad,India
- Designed tools to benchmark images captured with various SOTA algorithms.
- Assisted in capturing data and improving image quality captured by the camera.

PROJECTS

Mip NeRF
Pytorch port of Multiscale Representation of Anti Aliasing Neural Radiance Fields. Generate high resolution inference images without aliasing artifacts.