Dhawal Sirikonda

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http://dhawal1939.github.io/

Education

Jan. 2020 – Present — **M.S. Computer Science by Research, IIIT-H** in Computer Graphics and Vision.
CGPA: 8.7

Sept. 2019 – Dec. 2019 — **M.Tech, Computer Science, IIIT-H**
CGPA: 8.2 (discontinued and took-up Research Program)

Sept. 2014 – May 2018 — **B.Tech JNTUK-UCEV** in Computer Science and Engineering
Percentage: 81.85, Rank:2

Research

1. **Dhawal**, **S.**, Aakash, K., & Narayanan, P. J. (2022). Transfer Textures for Fast Precomputed Radiance Transfer. In B. Sauvage & J. Hasic-Telalovic (Eds.), *Eurographics 2022 - posters*. doi:10.2312/egp.20221012
2. Pulkit, G., Aakash, K., **Dhawal**, **S.**, Parikshit, S., & Narayanan, P. J. (2021). Appearance editing with free-viewpoint neural rendering. arXiv: 2110.07674
3. Pulkit, G., Aakash, K., **Dhawal**, **S.**, & Narayanan, P. J. (2021). Neural view synthesis with appearance editing from unstructured images. In *Proceedings of the twelfth indian conference on computer vision, graphics and image processing*. doi:10.1145/3490035.3490299

Research Projects

Sept. 2021 - Dec. 2021 — **Exploring Precomputed Radiance Transfer** - Work Accepted as Poster at EG-2022
In this work we have explored how decoupling of Rendering equation works using Spherical Domain transformations (specifically Spherical Harmonics). We have tested and tried different *transfer*(which accounts for visibility) storage techniques in various spaces (Vertex Attrib., UV-map Textures etc). We have incorporated the baked *inter-reflections* into PRT with lesser memory budgets in texture-space.

Jan. 2021 – Jul. 2021 — **Appearance-Editing** - Part of this work was accepted at ICVGIP-2021
In this work we have tried disentangling albedo from images. We employed a differentiable rendering pipeline to separate out the albedo. The Visibility and Lighting have been accounted for using the Spherical Harmonic representations. The work can be seen as an extension of DNR, while accommodating the appearance editing. We propose two pipeline one of which was accepted at the ICVGIP-2021.

Skills

Coding — C, Python, Pytorch, Mitsuba2, LaTeX, OpenGL, GLSL
Misc. — Academic research, teaching

Miscellaneous Experience

Achievements and Certifications

2018 — **Enlisted in Roll of Honors**, Academically 2nd in the batch of 2014-2018, JNTUK-UCEV
2017 — **Certified Programmer in building Systems and Applications**. MissionRnD