

Visual Computing Project Report

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Introduction

Shortly describe the task of the project. Motivate and give the problem statement of the task. Add at least one reference (book [2], paper [3], homepage [1]) via the 'sources.bib' and the 'cite' command. One final short paragraph about the own solution and the final results.

Results

Describe the experiments/scene. If there are visual results show some images; make sure they are of importance. If there are measurements possible for demonstration add plots; e.g. accuracy of classification or GPU runtime for each frame with `OpenGL Timer Query` [1].

Background

Shortly describe the necessary theory, e.g. Blinn-Phong illumination model, fourier transformation, Gaussian blur. Show the employed theoretical formulas and/or more specialized math.

$$I_S = k_S M_S I_L \left(\cos \frac{\phi}{2} \right)^m = k_S M_S I_L (\mathbf{n} \cdot \mathbf{h})^m \quad (1)$$

Method

Describe the method(s), or most essential part(s) of the method you used to solve the task. Also, some **short** implementation notes can be added here. Cite your sources accordingly.

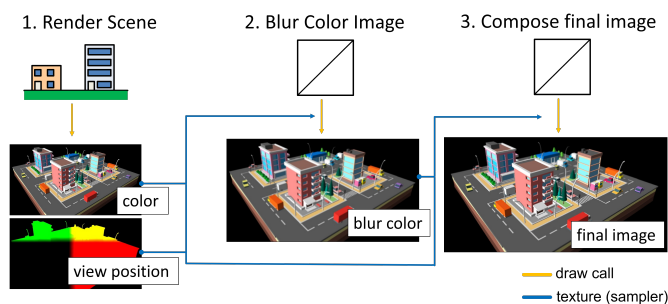


Figure 1: Abstract render pass pipeline for *post-process depth-of-field*

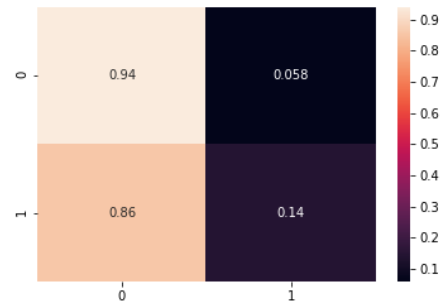


Figure 2: Normalized Confusion Matrix

Conclusion

Summarize what was done. Also add some of your findings, challenges, and problems you encountered. What are the limits? What could be improved?

More remarks: Do not modify the layout (font, margins, etc.). Avoid subsections and prefer a bold paragraph start. Try to write complete but succinct. Follow the section layout: introduction, background, method, results, and conclusion. But, feel free to adjust if it makes sense.

Amount: The report must have 4 **filled** pages (**without references**); Use a reasonable amount and size for images and plots.

References

- [1] Lighthouse3D OpenGL Timer Query Tutorial, 2020. <https://www.lighthouse3d.com/tutorials/opengl-timer-query/>.
- [2] Robert Bridson. *Fluid Simulation for Computer Graphics*. AK Peters, 2 edition, 2008.
- [3] Evgeny Zuenko and Matthias Harders. Wrinkles, Folds, Creases, Buckles: Small-Scale Surface Deformations as Periodic Functions on 3D Meshes. *IEEE TVCG*, 26(10):3077ff, 2020.