

# Georgios KOPANAS

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D.o.B: 21 August 1990

## WORK EXPERIENCE

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| <p><b>GOOGLE</b><br/>London, UK</p>   | <p><b>Senior Research Scientist</b> (January 2024 - Still Active) Actively working on 3D reconstruction. My role focuses on developing novel algorithms for Gaussian Splatting and Neural Radiance Fields, contributing to advancements in real-time, photorealistic 3D scene representation.</p>   |
| <p><b>INRIA</b><br/>GraphDeco Group<br/>Sophia-Antipolis, France</p>          | <p><b>PhD Candidate</b> (December 2019 - December 2023) My research focused on the field of <b>Novel View Synthesis</b>. More specifically from a set of unstructured photographs taken from a consumer camera, we are extracting a 3-D representation of the scene using differentiable <b>point-based rasterization</b> techniques to improve on the limitations of traditional and neural representations.</p> |
| <p><b>ADOB</b>E<br/>San Francisco, United States</p>                          | <p><b>Research Scientist Intern</b> Summer of 2023. During this internship we explore the scalability of generative models for point clouds. More specifically we want to scale diffusion models and address the limitations regarding the number of points that they can handle.</p>   |
| <p><b>ARM</b><br/>Media Processing Group<br/>Cambridge, United Kingdom</p>  | <p><b>Software Engineer</b> September 2016 - December 2019. I worked as part of the Mali GPU SWE team. More precisely I was part of the GPU driver team that is responsible for creating a non-intrusive way to capture any activity of the GPU drivers that are relevant to the user. This information is used for optimizing applications and monitoring the activity of the GPU.</p>                           |

## PUBLICATIONS

- 2024 "N-Dimensional Gaussians for Fitting High Dimensional Functions"  
SIGGRAPH 2024 (Journal Track)  
S.Diolatzis, T.Zirr, A.Kuznetsov, G.Kopanas, A.Kaplanyan
- 2024 "A Hierarchical 3D Gaussian Representation for Real-Time Rendering of Very Large Datasets"  
SIGGRAPH 2024 (Journal Track)  
B.Kerbl, A.Meuleman, G.Kopanas, M.Wimmer, A.Lanvin, G.Drettakis
- 2024 "Reducing the Memory Footprint of 3D Gaussian Splatting"  
Symposium on Interactive 3D Graphics and Games 2023 (I3D)  
P.Papantonakis, G.Kopanas, B.Kerbl, A.Lanvin, G.Drettakis
- 2023 "Improving NeRF Quality by Progressive Camera Placement for Free-Viewpoint Navigation"  
International Symposium on Vision, Modeling, and Visualization 2023 (VMV)  
G.Kopanas, G.Drettakis
- 2023 "3D Gaussian Splatting for Real-Time Radiance Field Rendering"  
SIGGRAPH 2023 (Journal Track) - 🏆 Best Paper Award  
G.Kopanas\*, B.Kerbl\*, T.Leimkhuler, G.Drettakis
- 2023 "NeRFshop: Interactive Editing of Neural Radiance Fields"  
Symposium on Interactive 3D Graphics and Games 2023 (I3D)  
C.Jambon, B.Kerbl, G.Kopanas, S.Diolatzis, T.Leimkhuler, G.Drettakis

- 2022 "Neural point catacaustics for novel-view synthesis of reflections"  
SIGGRAPH Asia 2022 (Journal Track)  
G.Kopanas, T.Leimkhuler, G.Rainer, C.Jambon, G.Drettakis
- 2021 "Point-Based Neural Rendering with Per-View Optimization"  
Eurographics Symposium on Rendering (EGSR) 2021 (Journal Track)  
G.Kopanas, J.Phillip, T.Leimkhuler, G.Drettakis
- 2016 "Unsupervised Underwater Fish Detection Fusing Flow and Objectiveness"  
Winter Conference on Applications of Computer Vision Workshops 2016  
D.Zhang, G.Kopanas, C.Desai, M.Piacentino, S.Chai.

## EDUCATION

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- 2016 Diploma (5-year B.S./M.S. diploma) in COMPUTER SCIENCE AND COMMUNICATION ENGINEERING, University of Thessaly, Volos, Greece

## LANGUAGES

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- GREEK: Excellent  
ENGLISH: Excellent  
GERMAN: Novice

## TECHNICAL SKILLS

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| PROGRAMMING LANGUAGES:                      | C, C++. Python, Java, MIPS Assembly   |
| PARALLEL PROGRAMMING LANGUAGES & LIBRARIES: | OpenCv, OpenGL, CUDA, OpenCL, OpenMP, MPI   |
| HARDWARE DESCRIPTION LANGUAGES:             | Verilog   |
| MATHEMATIC LANGUAGES:                       | MatLab  |
| SCRIPTING & MARKUP LANGUAGES:               | L <sup>A</sup> T <sub>E</sub> X, HTML, MaxScript                                      |
| OPERATING SYSTEM:                           | Linux, Windows  |
| OTHER:                                      | Flex, Bison, Microsoft Visual Studio,<br>Eclipse, Vtune, Nvidia Visual Profile<br>Git |

## INTERESTS AND ACTIVITIES

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Technology, Open-Source, Programming, Computer Architecture,  
Mountaineering, Photography