MICHAEL **FISCHER**

PhD Research Student
University College London

michael.fischer.20@ucl.ac.uk

mfischer-ucl.github.io/

PROFILE

I am a fourth-year PhD student at UCL, where I work with Tobias Ritschel and Niloy Mitra. My research interests include differentiable rendering, appearance modelling and intelligent optimization.

EDUCATION

Ph.D COMPUTER SCIENCE
Thesis Title: Efficient & High-Fidelity Deep Representations of Graphic Assets
2020-2024, University College London, UK

M.Sc. COMPUTER SCIENCE
Semester abroad
2020, UDG Guadalajara, Mexico

M.Sc. COMPUTER SCIENCE
Thesis Title: Neural Networks for automated image enhancement
Graduated with distinction (1.0)
2018-2020, JMU Wuerzburg, Germany

B.Sc. AEROSPACE I.T.
Thesis Title: A Component Simulation Model for Pulse Shape Analysis in Positron Annihilation Spectroscopy
Graduated with merit (1.6)
2014-2017, JMU Wuerzburg, Germany

SKILLS

LANGUAGES
German, English, Spanish, French

PROGRAMMING LANGUAGES
Python, C++, WebGL, JS, Matlab

LIBRARIES & FRAMEWORKS
PyTorch, Tensorflow, LaTex

SOFTWARE
Blender, Adobe Illustrator, Git

OTHER
Certified IPMA project manager

EXPERIENCE

ADOBE RESEARCH
R&D Internship, Computer Graphics & Inverse Rendering
2024, London, UK

META REALITY LABS
R&D Internship, Computer Graphics & Inverse Rendering
2023, Redmond, USA

MBDA SYSTEMS
R&D Internship, Flight Control Algorithms
2019, Schrobenhausen, Germany

RESEARCH & TEACHING ASSISTANT
SW/HW laboratories, student exams, marking
2017 - present, JMU & UCL

PUBLICATIONS

ZEROGRADS: LEARNING LOCAL SURROGATE LOSSES FOR NON-DIFFERENTIABLE GRAPHICS
Michael Fischer, Tobias Ritschel, **SIGGRAPH** 2024 (Journal)

NEURAL BOUNDING
Wenxin Liu, **Michael Fischer**, Tobias Ritschel, **SIGGRAPH** 2024

NERF ANALOGIES: EXAMPLE-BASED VISUAL ATTRIBUTE TRANSFER FOR NERFS
Michael Fischer, Tobias Ritschel, **CVPR** 2023

PLATEAU-REDUCED DIFFERENTIABLE PATH TRACING
Michael Fischer, Tobias Ritschel, **CVPR** 2023

LEARNING TO LEARN AND SAMPLE BRDFS
Chen Liu, **Michael Fischer**, Tobias Ritschel, **Eurographics** 2023

METAPPEARANCE: META-LEARNING FOR VISUAL APPEARANCE REPRODUCTION
Michael Fischer, Tobias Ritschel, **SIGGRAPH Asia** 2022 (Journal)

NICER: AUTOMATED IMAGE ENHANCEMENT WITH HUMANS IN THE LOOP
Michael Fischer, Konstantin Kobs, Andreas Hotho, **ACHI** 2020