

# MICHAEL FISCHER

PhD Research Student  
University College London



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## 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.

Graduated with merit (1.6)  
2014-2017, JMU Wuerzburg, Germany

## SKILLS

### LANGUAGES

German, English, Spanish, French

### PROGRAMMING LANGUAGES

Python, C++, WebGL, GLSL, Matlab

### LIBRARIES & FRAMEWORKS

PyTorch, Tensorflow, LaTeX

### SOFTWARE

Blender, Adobe Illustrator, Git

### OTHER

Certified IPMA project manager

## PROFILE

I am a second-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.

## EXPERIENCE

### MBDA SYSTEMS

R&D Internship "Flight Control Algorithms"  
Reinforcement-learning based drone defence strategies  
2018, Schrobenhausen, Germany

### RESEARCH ASSISTANT

Synthetic data generation for OCR applications  
2018-2020, JMU Wuerzburg, Germany

### TEACHING ASSISTANT

Soft- and hardware laboratories, student exams, marking  
2017 - present, JMU & UCL

## PUBLICATIONS

### METAPPEARANCE: META-LEARNING FOR VISUAL APPEARANCE REPRODUCTION

Michael Fischer, Tobias Ritschel  
SIGGRAPH Asia 2022, Journal Track

### LEARNING TO LEARN AND SAMPLE BRDFS

Chen Liu, Michael Fischer, Tobias Ritschel  
Eurographics 2023

### PLATEAU-FREE DIFFERENTIABLE PATH TRACING

Michael Fischer, Tobias Ritschel  
arXiv preprint (under submission)

### NICER: AUTOMATED IMAGE ENHANCEMENT WITH HUMANS IN THE LOOP

Michael Fischer, Konstantin Kobs, Andreas Hotho  
ACHI 2020