# THU NGUYEN-PHUOC

I am a research scientist at Reality Labs Research, Meta. Previously, I was a PhD student and MSCA FIRE Fellow in Visual Computing at The Centre for Digital Entertainment (CDE), University of Bath. My research interest includes machine learning, 3D vision and computer graphics, in particular, rendering and inverse rendering.

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monkeyoverflow.com
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## Education

**University of Bath**
PhD researcher in Computer Science
Bath, UK, Oct 2016 - May 2022

**University of Stuttgart**
MSc Computational Design and Digital Fabrication
Stuttgart, Germany, Oct 2014 - Oct 2016

**University of Bath**
BSc (Hons) Architecture
Bath, UK, Sep 2010 - July 2014

## Scholarships & Awards

- Shorlisted for Univesity of Bath Godfrey and Sue Hall Postgraduate Research Student Prize
- Research Fellowship, EU Marie Skłodowska-Curie Actions (MSCA FIRE), 2016-2021
- Best Student Poster Award, Machine Learning Summer School London, 2019
- Travel grants: ICCV 2019, NeurIPS 2018, Women in Machine Learning NeurIPS 2018, Smart Geometry 2014
- Summer Research Fellowship, AAC 2014

## Experience

**Reality Labs Research, Meta (previously FRL Research)**
Research Scientist - Current

**Reality Labs Research, Meta (previously FRL Research)**
Research Scientist Intern
London, UK, Sep - Dec, 2021

**DeepMind**
Research Scientist Intern
London, UK, April - Aug., 2021

**Lambda Labs / Deep Voodoo studio**
Machine Learning Consultant
San Francisco, USA, Jan. - Arpil 2021

**Adobe Research**
Research Intern
San Jose, USA, Feb. - June, 2020

**Smart Geometry Processing, UCL**
Visiting Researcher
Host: Professor Niloy Mitra
London, UK, Aug.-Nov., 2019

**Lambda Labs**
Visiting Researcher
Palo Alto, USA, Oct. 2017

**Institute for Computational Design and Construction**
University of Stuttgart
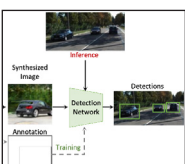Student Research Assistant
Stuttgart, Germany, 2015 - 2016

## Publications



**SNeRF: Stylized Neural Implicit Representations for 3D scenes**
**Thu Nguyen-Phuoc**, Feng Liu, Lei Xiao
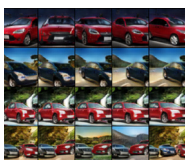SIGGRAPH 2022        PDF        Project page



**SSOD: Self-Supervised Object Detection via Generative Image Synthesis**
Siva Karthik Mustikovela, Shalini De Mello, Aayush Prakash, Umar Iqbal, Sifei Liu, **Thu Nguyen-Phuoc**, Carsten Rother, Jan Kautz
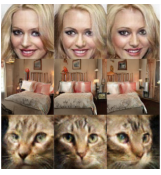ICCV 2021        PDF        Project page



**BlockGAN: Learning 3D Object-aware Scene Representations from Unlabelled Images**
**Thu Nguyen-Phuoc**, Christian Richardt, Long Mai, Yongliang Yang, Niloy Mitra
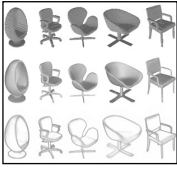NeurIPS 2020        PDF        Project page

**HoloGAN: Unsupervised learning of 3D representations from natural images**
**Thu Nguyen-Phuoc**, Chuan Li, Lucas Theis, Christian Richardt, Yongliang Yang
ICCV 2019     PDF     Project page



**RenderNet: A deep convolutional network for differentiable rendering from 3D shapes**
**Thu Nguyen-Phuoc**, Chuan Li, Stephen Balaban, Yongliang Yang
NeurIPS 2018     PDF     Project page

# Invited talks

**Neural rendering and inverse rendering using physical inductive biases**
UCL Centre for Artificial Intelligence (Oct, 2020)
NVIDIA (June, 2020)
NVIDIA GTC (March, 2020)
BAIR, UC Berkeley, US (February, 2020)
Microsoft Research Cambridge, Cambridge, UK (September 2019)
Machine Learning Tutorial Series, Imperial College London, London, UK (March 2019)
CoTAI Tutorial Seminar, Ho Chi Minh City, Vietnam (July 2019)

**HoloGAN: Unsupervised learning of 3D representations from natural images**
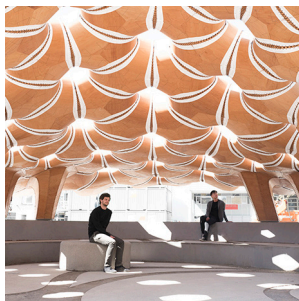BMVA symposium: Generative Networks In Computer Vision and Machine Learning (Nov 2019)

**RenderNet: A deep convolutional network for differentiable rendering from 3D shapes**
Smart Geometry Processing Group, University College London, London, UK (Nov 2018)
London NIPS talk, University College London, London, UK (Nov 2018)
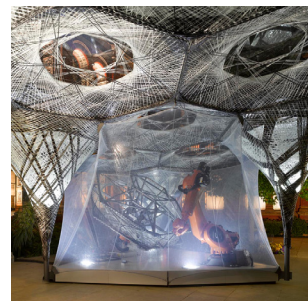
# Other projects



**ICD/ITKE Research Pavilion 2015-2016**
Winner of the Small Scale Architecture category,
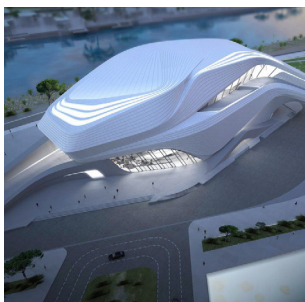ArchDaily 2017 Building of the Year Awards
Institute for Computational Design 2015 - 2016



**Elytra Filament Pavilion at V&A museum, London**
Second prize in the category DETAIL Structure
for the DETAIL PRIZE 2016.
Institute for Computational Design 2015 - 2016
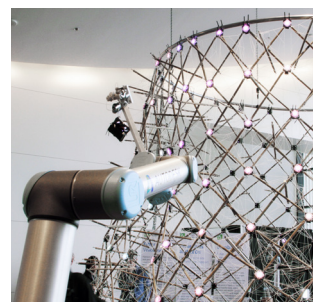


**Grand Théatre de Rabat**
Zaha Hadid Architects *2013*



**Changsha Meixihu International
Culture and Arts Center**
Zaha Hadid Architects *2013*



**Autodesk Pavilion**
Institute for Computational Design
in collaboration with Autodesk 2015