# Delio Vicini

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### **Education**

September 2017 — PhD Student, École Polytechnique Fédérale de Lausanne, Switzerland

now

Advisor: Prof. Dr. Wenzel Jakob

Topics: Rendering, machine learning

2015 - 2017

M. Sc. in Computer Science, ETH Zurich, Switzerland

Focus Track: Visual Computing

GPA: 5.92 / 6.00 (graduation with distinction)

Thesis: Gradient-Domain Volumetric Path Tracing (Advisors: Dr. Jan Novák,

Dr. Fabrice Rousselle, Prof. Dr. Markus Gross)

2012 - 2015

B. Sc. in Computer Science, University of Bern, Switzerland

Subjects: Computer Science 90 ECTS, Mathematics 60 ECTS, History 30 ECTS

GPA: 5.91 / 6.00 (Summa Cum Laude)

Thesis: Image Filtering using Halide and a new Denoising Algorithm for Gradient-

Domain Rendering (Advisor: Prof. Dr. Matthias Zwicker)

## **Publications**

2018 D. Vicini, D. Adler, J. Novák, F. Rousselle, B. Burley, Denoising Deep Monte Carlo

Renderings, Computer Graphics Forum, 2018

2016 M.Manzi, D.Vicini, M.Zwicker: Regularizing Image Reconstruction for Gradient-

**Domain Rendering with Feature Patches**, Computer Graphics Forum (Proc.

Eurographics 2016), 2016

# **Professional Experience**

November 2016 -

Research Intern (Rendering Group)

February 2017

Walt Disney Animation Studios (in collaboration with and located at Disney Research

Zurich)

July - September

Research Intern (Rendering Group)

2016

Disney Research Zurich

Fall 2014 /	<b>Teaching Assistant</b> (Lectures: Analysis I/II)
Spring 2015	Mathematical Institute, University of Bern
Spring 2014	<b>Teaching Assistant</b> (Lecture: Computer Architecture) Institute of Computer Science. University of Bern

### **Technical Skills**

Programming Languages/Frameworks C++, Python, Tensorflow, CUDA, MATLAB, Halide, C#,

OpenGL, GLSL, Java

Tools Git, Maya, Nuke, Photoshop

Language Skills

German Native Language

English Proficient

French Intermediate

**Study Projects** 

3D Vision (ETH Zürich, 2016) Depth Map and Normal Direction Fusion Using

**Convex Optimization** 

Computational Intelligence Lab (ETH Road Extraction from Aerial Images using Deep

Zürich, 2016) Convolutional Neural Networks (3<sup>rd</sup> place in class

competition)

Game Programming Lab (ETH Zürich, Development of a splitscreen multiplayer racing game

2016) titled "Fruit Smashers".

Computer Graphics (ETH Zürich, 2015) Implementation of subsurface scattering, denoising

and several smaller rendering features based on the Nori framework (2<sup>nd</sup> place in rendering competition)

Nori framework (2<sup>nd</sup> place in rendering competition

Physically-Based Simulation (ETH Zürich, 2015)

ompetition competition

Goal-Driven Fire Simulation (1<sup>st</sup> place in project competition)

Multimedia Communications (ETH Zürich, Compressing Images Using K-SVD Learned

2015) Overcomplete Dictionaries

Software Engineering Lab (University of Bern, 2014)

Patria-DB: Extension of a web-based member management software for the local scout organization

management software for the local scout organization "Patria".

Tut

Introduction to Software Engineering, (University of Bern, 2013)

Android app to retrieve the canteen menus and

organize lunch with friends.