Apostolia Tsirikoglou

PhD candidate | Computer graphics and image processing

♀ Linköping University, Sweden

i Born in 1985 in Greece and currently living in Stockholm, Sweden



Apostolia is a PhD candidate with a focus on deep learning for computer vision tasks, visual scene understanding and photorealistic image synthesis. Among others, she is interested in BRDFs, shaders development and geometry reconstruction.



Experience

Today 02 / 16

PhD candidate, Linköping University, Sweden

:: Funded by the Wallenberg AI, Autonomous Systems and Software Program (WASP)

:: Work on

- > Deep learning for computer vision and graphics
- > Photo-realistic image synthesis | physically-based rendering
- > BRDF acquisition | material representation and editing | translucent materials
- > Laser-scanning and geometry reconstruction from 3D point-clouds
- :: Teaching assistant in
 - > Image Processing and Analysis (TNM087 2018)
 - > Introduction to programming (TND012 2016, 2017, 2018)
 - > Programming in C++ (TNG033 2016, 2017)
- :: Member of the MIT web editors group

Caffe - Tensorflow - PyTorch - Lassagne C++ - Python - Matlab MeshLab - Sequoia - Maya

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Research engineer, Linköping University, Sweden

01/14

- > Development of algorithms for geometry handling, image synthesis and rendering
- > Maya and V-Ray shaders
- > BRDF acquisition
- > Point-cloud processing and 3D modeling of laser-scanned sites to derive 3D meshes

C++ - Python - OSL - MEL - VRay SDK MeshLab - Maya

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Graphics software developer, Swiss International, Sweden

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> Design and development of a professional and artist friendly multi-layer subsurface scattering shader that is currently used in production.

C++ - VRay SDK

06 / 11

Electrical and computer engineer, Karkanias Environmental Technology SA, Greece

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- > Development of a uniform platform for calculation of the transported electric field and power distribution for high voltage industry
- > Specification of the technical electrical and electro-mechanical equipment Visual Basic

Education

02 / 16 – Today **Doctoral studies**, Linköping University

- :: Selected courses and activities
- > Deep Learning for Computer Graphics (MIT internal course)
- > Pattern Recognition and Machine Learning (MIT internal course)
- > Autonomous Systems (WASP course)
- > Software Engineering and Cloud Computing (WASP course)
- > Summer school on Autonomous Systems 2016 (WASP)
- > Summer school on Machine Learning 2017 (WASP)
- 08 / 11 03 / 13 MSc [2 yr] in Media Technology and Engineering, Advanced Computer Graphics program, Linköping University
- 09/03-11/10 **MEng [5 yr] in Electrical and Computer Engineering**, School of Electrical and Computer Engineering, Aristotle University of Thessaloniki

Publications

- 2017 A. Tsirikoglou, J. Kronander, M. Wrenninge, and J. Unger. Procedural modeling and physically based rendering for synthetic data generation in automotive applications. *In arXiv*:1710.06270
- 2016 A. Tsirikoglou, J. Kronander, P. Larsson, T. Tongbuasirilai, A. Gardner, and J. Unger. Differential appearance editing for measured BRDFs. *In ACM SIGGRAPH Talks*
- 2014 A. Tsirikoglou, S. Ekeberg, J. Vikström, J. Kronander, and J. Unger. S(wi)ss: A flexible and robust sub-surface scattering shader. *In SIGRAD*

Competences

Programming: C++, Python, Matlab, OpenGL - GLSL, OSL, OpenCV, OpenMesh, MEL, VRay SDK, Bash, 上X

DL framework: Caffe, Tensorflow, PyTorch, Lassagne

Software: Maya, Blender, MeshLab, Sequoia, Nuke, AutoCad

OS: Linux, Microsoft Windows, Mac

Languages





Music (playing the piano), books, anything new, people