Olga Diamanti

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Interests

Geometric Modeling/Processing/Design; Digital Fabrication; Image/Video Analysis

Education

PhD, Computer Science, ETH Zurich, Switzerland 2011 - 2015
7 papers in geometry processing / image analysis: surface parameterization and mappings, vector field processing, image texture synthesis, computational fabrication, visual people tracking, depth perception.
Thesis: *Algorithms for User-Guided Surface Mappings.*

MSc, Computer Science, ETH Zurich, Switzerland 2008 - 2010
Computer vision techniques for people tracking, pose estimation, GPU-based image segmentation.
Thesis: *Markerless Motion Capture in Uncontrolled Environments* (grade: 6.0/6.0).

Diploma, Electrical/Computer Engineering NTU Athens, Greece 2002 - 2007
Computer vision/signal processing techniques for hand pose detection and tracking.
Thesis: *Visual Analysis of Sign Language Videos : Image Segmentation, Motion Tracking and Feature Extraction* (grade: 10.0/10.0).

Distinctions

Best Paper Award Eurographics SGP 2018
IEEE Travel Grant Award IEEE Signal Processing Society 2017
Best Poster Award Stanford Bio-X Interdisciplinary Initiatives Symposium 2017
Bio-X Travel Subsidy Award Stanford Bio-X Interdisciplinary Program 2017
PhD Dissertation Medal ETH Zurich (top 8% university-wide) 2016
Early PostDoc. Mobility Grant Swiss National Science Foundation 2016
Software Award Eurographics SGP for library `libigl` (co-contributor) 2015
Best Paper Award Eurographics SGP 2014
MSc Excellence Scholarship ETH Zurich 2008
Ranked in top 5% of ECE Diploma graduates, NTU Athens, Greece 2007
Ranked 12/330 at Greek state-wide university admission exams (Grade: 19.7/20) 2002
Outstanding state-wide middle/high school performance awards , Greece. 1999 - 2002

Professional Experience

Postdoctoral Researcher, TU Berlin, Germany 2018 - now
Topics in discrete differential geometry.

Principal AI Researcher, Autodesk Inc., CA USA 2018
Projects combining geometry and machine learning.

Postdoctoral Researcher, Stanford University, CA USA 2016 - 2018
6 papers on geometry analysis and machine learning for geometry: interaction detection from scans, discrete geometric operators, object structure learning, point cloud generation using deep neural nets.

Postdoctoral Researcher, ETH Zurich, Switzerland 2015 - 2016
Topics in harmonic vector field synthesis on 3D meshes.

Intern, Adobe Research, MA USA 2012
1 paper in user-guided, controllable texture synthesis in images, for material editing in photographs.

Research Assistant, ETH Zurich, Switzerland 2011 - 2015
Research- and teaching-oriented employment for the duration of the PhD studies.

Intern, Disney Research Zurich, Switzerland 2010 - 2011
Computer vision techniques for people detection and tracking for theme park applications.

Intern, Disney Research Zurich, Switzerland 2009
Computer vision techniques for pattern recognition in theme park attraction applications.

Scholarship Rotation, ETH Zurich, Switzerland 2008 - 2010
GPU-based image segmentation and pose estimation from uncontrolled user RGB videos.

Researcher, Institute for Communication and Computing Systems (ICCS), Athens, Greece 2007 - 2008
Computer vision techniques for video-based hand detection / tracking, sign language recognition.

Trainee, Imaging and Electroscopy Lab, University of Sao Paulo, Brasil 2006
MRI spectrometer configurations for diffusion tensor brain imaging.

Technical Skills

Languages : C++/C, Matlab, Python, LaTeX, SSE/AVX.
Libraries : STL, Boost, Qt, Eigen, OpenGL, OpenMesh, OpenCV, CGAL, libIGL, TensorFlow
Operating Systems : Mac OS X, Windows, Linux.
IDEs/Tools : Xcode, Visual Studio, QtCreator, Illustrator, After Effects, Photoshop, svn, git.

Supervision / Teaching

Student Supervision

Kaichun Mo, Summer Internship, Autodesk	2018
Fangyin Wei, Summer Internship, Stanford University;	
Panos Achlioptas, Vignesh Ganapathi-Subramanian, PhD Projects, Stanford University	2017
Kevin Wallimann, Semester Thesis, ETH Zurich	2015
Xiang Gao, Master Thesis, ETH Zurich	2014

Guest Lectures

CS468 - Machine Learning for 3D Data, Stanford University	2017
CS348a - Computer Graphics: Geometric Modeling/Processing, Stanford University	2017
Quadrangulation Tutorials, Guibas Lab, Stanford University	2017

Teaching Assistant

Shape Modeling and Geometry Processing, ETH Zurich	2012-2015
Computer Science I for Civil Engineers, ETH Zurich	2014
Computer Vision, NTU Athens	2007
Digital Signal Processing, NTU Athens	2007

Professional Activities

Papers Chair : Eurographics (EG) Short Papers 2018
Papers Committee : SIGGRAPH 2019, Shape Modeling International (SMI) 2016-2018, Advances in Architectural Geometry (AAG) 2018, Pacific Graphics (PG) 2017-2018, ACM/Eurographics Symposium on Geometry Processing (SGP) 2017-2018
Reviewer: Elsevier CAD 2018, ACM SIGGRAPH 2016-2017, ACM Transactions on Graphics 2017-2019, AAG 2018, EG 2016-2017, 2019, The Visual Computer Journal 2017, SMI 2016-2018, SGP 2017-2018, Computer-Aided Design 2018, Computation 2017, Computer Graphics International 2017, Journal on Computer Graphics Techniques 2016, SIGGRAPH Asia 2016/2018, PG 2016-2018, IEEE Transactions on Visualization and Computer Graphics 2015-2017, Computers&Graphics 2014, IEEE Conference on Computer Vision and Pattern Recognition 2011

Selected Talks

Xerox PARC, Palo Alto	2018
IEEE Conference on Image Processing, Beijing; ACM SIGGRAPH, Los Angeles; SIAM Conference on Industrial and Applied Geometry (GD17), Pittsburgh	2017
ACM SIGGRAPH, Los Angeles; ACM/Eurographics SGP, Graz; Geometry Workshop, Seggau; Institute for Science and Technology, Vienna; Stanford University; Swiss Federal Technical University, Lausanne; Max Planck Institute, Tuebingen	2015
ACM/Eurographics SGP, Cardiff	2014
ACM SIGGRAPH, Los Angeles	2013
International Gesture Workshop, Bielefeld	2009

Languages

Greek *(native)*, English *(fluent)*, German - *(intermediate)*, French *(beginner)*.

References/ Publications

See attached document.