

Pavlos Mavridis

CONTACT INFORMATION	Rappenthaldestr. 4 72762 Reutlingen Germany	<i>Phone:</i> (+49) 160 93064015 <i>E-mail:</i> pmavridis@gmail.com <i>Web:</i> http://www.pmavridis.com
BORN	25 February 1981, Kozani, Greece	
MILITARY SERVICE	Greek Army, 2006 - 2007	
EDUCATION	Athens University of Economics & Business, Greece 2010 – 2013 Ph.D. in Computer Graphics from the Department of Informatics. Advisor: Prof. G. Papaioannou. Thesis title: <i>“Efficient Texture Representation and Sampling Algorithms for Real-time Rendering”</i> . National & Kapodestrian University of Athens, Greece 2004 – 2006 M.Sc. in Computer Science, Department of Informatics and Telecommunications. 1999 – 2004 B.Sc. in Computer Science, Department of Informatics and Telecommunications.	
PROFESSIONAL EXPERIENCE	Microsoft, Germany Senior Software Engineer September 2017 – Present Work on real-time rendering techniques for multiple hardware platforms. Graz University of Technology, Austria Postdoc Researcher April 2016 – August 2017 Research and development of geometry processing and shape analysis algorithms with applications on 3D printing and 3D object retrieval. Key technologies: C/C++, OpenVDB, RenderMan RIS, Git. Athens University of Economics & Business, Greece Postdoc Researcher February 2013 – January 2016 Research and development of high-performance rigid and non-rigid geometric alignment methods with applications on 3D data acquisition and computational archaeology. Key technologies: C/C++, OpenGL, OpenVDB, SVN, OpenMP, WebGL. Foundation of the Hellenic World, Greece Software Engineer September 2007 – February 2013 Design and development of real-time rendering techniques for Virtual Reality applications, running on immersive CAVE and Dome setups. Responsible for various aspects of the rendering technology, including stereoscopic rendering, shadows, shading, high and low-level optimizations. Key technologies: C/C++, OpenGL, SpeedTree, Python, Bash, Linux.	
PERSONAL PROJECTS	HyperDroste for iOS Released in Nov 2014 A unique image processing app for iOS that lets you create infinite zooming droste effect animations from your photos. Key technologies: Objective C, Xcode, OpenGL ES, HTML5/CSS.	
TEACHING EXPERIENCE	Graz University of Technology, Austria Simulation and Animation 2017 Postgraduate course on simulation and animation techniques, including topics such as fluid simulation, rigid-body dynamics, fracture and skeletal animation.	

Graz University of Technology, Austria

Computer Graphics and Realism

2016

Postgraduate course on physically-based photorealistic rendering techniques.

National & Kapodestrian University of Athens, Greece

Computer Graphics and Visualization

2013 – 2014

Postgraduate course on real-time rendering and visualization techniques, co-taught with Prof. Th. Theoharis.

TECHNICAL
SKILLS

Programming Languages: C/C++, Python.

Graphics APIs: OpenGL/GLSL, WebGL.

Version Control: Git, SVN.

Experience in:

- parallel applications using multithreading and GPU compute.
- high and low-level code optimizations.
- distributed applications using socket programming.
- real-time and offline rendering systems.

Secondary Skills: Shell scripting (Bash), Objective C, PHP, SQL, Javascript, HTML/CSS, L^AT_EX.

RESEARCH
INTERESTS

Real-time rendering techniques, global illumination algorithms, volumetric methods for geometry processing and shape analysis.

SELECTED
PUBLICATIONS

P. Mavridis, I. Sipiran, A. Andreadis and G. Papaioannou, “*Object Completion using k-Sparse Optimization*”, Computer Graphics Forum (Proceedings of Pacific Graphics 2015), Volume 34, Number 7, October 2015.

P. Mavridis, A. Andreadis and G. Papaioannou, “*Efficient Sparse ICP*”, Computer Aided Geometric Design (CAGD), Volumes 35-36, May 2015.

P. Mavridis and G. Papaioannou, “*The Compact YCoCg Frame Buffer*”, Journal of Computer Graphics Techniques (JCGT), Vol. 1, No. 1, Sept 2012.

P. Mavridis and G. Papaioannou, “*Texture Compression using Wavelet Decomposition*”, Computer Graphics Forum (Proceedings of Pacific Graphics 2012), Volume 31, Number 7, September 2012.

P. Mavridis and G. Papaioannou, “*High Quality Elliptical Texture Filtering on GPU*”, Proceedings of the 2011 ACM SIGGRAPH symposium on Interactive 3D Graphics and Games (i3D 2011).

BOOK
CHAPTERS

P. Mavridis and G. Papaioannou, “*Practical Frame Buffer Compression*”, in the book GPU Pro 4: Advanced Rendering Techniques, Wolfgang Engel (ed.), A K Peters/CRC Press 2013.

P. Mavridis and G. Papaioannou, “*Practical Elliptical Texture Filtering*”, in the book GPU Pro 3: Advanced Rendering Techniques, Wolfgang Engel (ed.), A K Peters/CRC Press 2012.

LANGUAGES

English (Fluent), Greek (Native)

PERSONAL
INTERESTS

Hiking and photography.