

# KOSTAS VARDIS

---

<b>Gender</b>	Male
<b>Date of Birth</b>	19 <sup>th</sup> December 1982
<b>Nationality</b>	Greek
<b>Location</b>	Athens, Greece
<b>Military Obligations</b>	Fullfilled (11/2010 - 07/2011)
<b>Profession</b>	Computer Scientist (BSc, MSc, PhD)
<b>Current Position</b>	Postdoctoral Fellow in the <a href="#">Department of Informatics</a> at the <a href="#">Athens University of Economics and Business</a>
<b>Webpage</b>	<a href="http://kostasvardis.com">kostasvardis.com</a>
<b>E-mail</b>	<a href="mailto:kvardis@hotmail.com">kvardis@hotmail.com</a>

---

## Work Experience

---

- 2013 - Now**    **Athens University of Economics and Business**  
*R&D in Computer Graphics, Member of [Computer Graphics AUEB Group](#)*
- Projects:
- Visualization Engine for the CostOS software of [Nomitech Ltd.](#) (2016-2017)  
Design and development of real-time visualization solutions for large-volume 3D datasets  
Position: Senior researcher, developer
  - [GLIDE](#) (2014-2015)  
Goal-driven Lighting for Dynamic 3D Environments (ARISTELA II programme)  
18-month research project co-funded by the General Secretariat of Research and Technology and the European Union  
Position: Researcher, developer.
  - [PRESIOUS](#) (2013-2016)  
Predictive digitization, restoration and degradation assessment of cultural heritage objects  
3-year EU-funded STREP project (600533).  
Position: Researcher, Lead developer for Computer Graphics AUEB Group
- Worked on:** C++, C#, OpenGL, CUDA, Qt, ASP.NET, VB.NET, etc.
- 2008 - 2013**    **Oraton Simulation Intelligence Technologies**  
*Visualization and Geoinformatics Senior Software Engineer – full-time/external associate*
- Development of desktop- and web-based systems for map data visualization in the private and public sector.
- Worked on:** C#, ASP.NET, PHP, Javascript, Silverlight, etc.
- 2008 - 2009**    **Evorad**  
*Graphics and Medical Visualization Software Engineer*
- Development of GPU- and GPGPU-based software for the visualization of 3D medical images.
- Worked on:** Java, OpenGL, CUDA
- 2006 - 2008**    **SEGA – The Creative Assembly**  
*Programmer*
- Graphics Engine and UI Programmer on Empire: Total War (released on March 2009).
- Worked on:** C++, DirectX

---

## Publications

---

- [1] A. A. Vasilakis\*, K. Vardis\*, G. Papaioannou\*, and K. Moustakas. “**Variable  $k$ -Buffer using Importance Maps**”. In: *EG 2017 - Short Papers*. Ed. by A. Peytavie and C. Bosch. The Eurographics Association, 2017 (\*these authors contributed equally to this work). URL: <https://diglib.eg.org/handle/10.2312/egsh20171005>.
- [2] G. Papaioannou, T. Schreck, A. Andreadis, P. Mavridis, R. Gregor, I. Sipiran, and K. Vardis. “**From Reassembly to Object Completion: A Complete Systems Pipeline**”. In: *J. Comput. Cult. Herit.* 10.2 (Mar. 2017), 8:1–8:22. ISSN: 1556-4673. URL: <http://doi.acm.org/10.1145/3009905>.
- [3] K. Vardis, A. A. Vasilakis, and G. Papaioannou. “**DIRT: Deferred Image-based Ray Tracing**”. In: *Eurographics/ ACM SIGGRAPH Symposium on High Performance Graphics*. Ed. by U. Assarsson and W. Hunt. Dublin, Ireland: The Eurographics Association, 2016. ISBN: 978-3-03868-008-6. URL: <https://diglib.eg.org/handle/10.2312/hpg20161193>.
- [4] K. Vardis, A. A. Vasilakis, and G. Papaioannou. “**A Multiview and Multilayer Approach for Interactive Ray Tracing**”. In: *Proceedings of the ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games*. I3D '16. Redmond, Washington: ACM, 2016, pp. 171–178. ISBN: 978-1-4503-4043-4. URL: <http://doi.acm.org/10.1145/2856400.2856401>.
- [5] K. Vardis, G. Papaioannou, and A. Gkaravelis. “**Real-time Radiance Caching using Chrominance Compression**”. In: *Journal of Computer Graphics Techniques (JCGT)* 3.4 (Dec. 2014), pp. 111–131. ISSN: 2331-7418. URL: <http://jcgt.org/published/0003/04/06>. Presented in: *Proceedings of the ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games*. I3D'15. San Francisco, California.
- [6] K. Vardis, G. Papaioannou, and A. Gaitatzes. “**Multi-view Ambient Occlusion with Importance Sampling**”. In: *Proceedings of the ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games*. I3D '13. Orlando, Florida: ACM, 2013, pp. 111–118. ISBN: 978-1-4503-1956-0. URL: <http://doi.acm.org/10.1145/2448196.2448214>.

---

## Technical Reports

---

- [7] A. Gkaravelis\*, C. Kalampokis\*, G. Papaioannou\*, K. Vardis\*, and A. A. Vasilakis\*. *STAR on Interactive Global Illumination Techniques and Inverse Lighting Problems*. Tech. rep. GLIDE: Goal-driven Lighting for Dynamic 3D Environments, Deliverable 1.1. Athens University of Economics and Business, Aug. 2014 (\*authors listed in alphabetical order). URL: <http://graphics.cs.aueb.gr/graphics/docs/GLIDE-D1.1.pdf>.

---

## Teaching Experience

---

2012 - 2015    **Athens University of Economics and Business**  
*Teaching Assistant - Computer Science BSc*

Databases	Eastern semester	2nd year course
Computer Graphics	Winter semester	4th year course

---

## Research Interests

---

Interactive graphics, rendering techniques, illumination algorithms

---

## Education

---

- 2011 - 2016**    **PhD in Computer Graphics**  
Athens University of Economics and Business, Greece  
Thesis title: *"Efficient Illumination Algorithms for Global Illumination in Interactive and Real-Time Rendering"*
- 2004 - 2005**    **MSc in Virtual Environments and Visualization**  
University of Hull, UK
- 2001 - 2004**    **BSc (Hons) in Computer Science**  
University of Sussex, UK
- 

## Programming Skills

---

Core experience:

C++, OpenGL, GLSL

Professional experience:

C#, Java, Direct3D, HLSL, Objective C, ASP.NET, SQL, JavaScript, MATLAB, PHP, Lua, etc.

General knowledge:

Assembly, HTML, CSS, Pascal, Python, VB.NET, etc.

---

## Languages

---

*Greek*    Native Language

*English*    Fluent

*French*    Elementary