

KOSTAS VARDIS

Gender	Male
Date of Birth	19 th December 1982
Nationality	Greek
Location	Athens, Greece
Military Obligations	Fullfilled (11/2010 - 07/2011)
Profession	Computer Scientist (BSc, MSc, PhD)
Current Position	Postdoctoral Fellow in the Department of Informatics at the Athens University of Economics and Business
Webpage	www.kostasvardis.com
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Work Experience

- 2013 - Now** **Athens University of Economics and Business**
R&D in Computer Graphics, Member of [Computer Graphics AUEB Group](#)
- Current Projects:
- Visualization Engine for the CostOS software by [Nomitech Ltd.](#) (2016-Now)
Design and development of real-time visualization solutions for large-volume 3D datasets
Position: Senior researcher, developer
- Past Projects:
- [GLIDE](#) (2014-2015)
Goal-driven Lighting for Dynamic 3D Environments (ARISTEIA 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
- Technologies:** 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 both in the private and public sector.
- Technologies:** 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.
- Technologies:** Java, OpenGL, CUDA.
- 2006 - 2008** **SEGA – The Creative Assembly**
Programmer
- Graphics Engine and UI Programmer on Empire: Total War (released on March 2009).
- Technologies:** 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.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.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://jcg.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

Education

2012 - 2016 **Athens University of Economics and Business, Greece**
PhD in Computer Graphics
Thesis title: “*Efficient Illumination Algorithms for Global Illumination in Interactive and Real-Time Rendering*”

2004 - 2005	University of Hull, UK MSc in Virtual Environments and Visualization
2001 - 2004	University of Sussex, UK BSc (Hons) in Computer Science
2000 - 2001	B.S. College, Athens, Greece Foundation Certificate with Distinction
1997 - 2000	2nd Senior High School, Thebes, Greece Senior High School Certificate

Research Interests

Interactive 3D graphics, rendering techniques, illumination algorithms

Programming Skills

Good knowledge (based on prior professional experience):
C++, C#, Objective C, Java, OpenGL, Direct3D, HLSL, GLSL, ASP.NET, SQL

General knowledge:
Assembly, HTML, CSS, JavaScript, Lua, Pascal, PHP, VB.NET, etc.

General Skills

- Able to work individually or as a team, with people of many different backgrounds
- Ability to work under pressure
- Good communication, writing and presentation skills
- Good organization and planning skills

Languages

Greek Native Language
English Fluent
French Elementary