Giorgos Vasiliadis

gvasil@csd.uoc.gr, http://www.csd.uoc.gr/∼gvasil

PERSONAL DETAILS	Date of Birth: January 31, 1985
	Nationality: Greek
	Languages: English, German, Greek
	Military Service: Fulfilled (Feb 2009 - Jan 2010)

EDUCATION

Ph.D. Candidate in Computer Science   Feb. 2010 – *present*
Computer Science Department, University of Crete, Greece
Advisors: Prof. Evangelos P. Markatos and Dr. Sotiris Ioannidis

M.Sc. in Computer Science   Sep. 2006 – Nov. 2008
Computer Science Department, University of Crete, Greece
GPA: 9.20 (out of 10)
Major: Parallel and Distributed Systems
Minor: Information Systems
Thesis: *Improving the Performance of Network Intrusion Detection Systems Using Graphics Processors*
Advisor: Prof. Evangelos P. Markatos

B.Sc. Degree in Computer Science   Sep. 2002 – Sep. 2006
Computer Science Department, University of Crete, Greece
GPA: 8.21 (out of 10); ranked second in class
Thesis: *A Hybrid Lightweight Honeypot for Data Reduction in a Honeyfarm System*
Advisor: Prof. Evangelos P. Markatos

WORK EXPERIENCE

R&D Engineer / Research Assistant   March 2010 – present
Distributed Computing Systems Lab, FORTH-ICS
• Research on fast pattern matching for network intrusion detection systems.

R&D Engineer / Research Assistant   July 2005 – Sep. 2008
Distributed Computing Systems Lab, FORTH-ICS
• Participation in the development and implementation of the EU-funded projects LOBSTER (distributed passive network monitoring), and NoAH (network of affined honeypots).
• Implementation of a prototype Network Intrusion Detection System, namely Gnort, using GPGPU programming.

TEACHING EXPERIENCE

Teaching Assistant, University of Crete   September 2006 – present
University of Crete
CS150 – Programming in C. Spring 2011
CS100 – Introduction to Computer Science. Fall 2010
CS459 – Internet Measurement. Spring 2010
CS335 – Computer Networks. Spring 2008
CS463 – Information Retrieval Systems. Spring 2007
CS345 – Operating Systems. Fall 2006 and Fall 2007

TECHNICAL SKILLS

Operating Systems: MS Windows 2000/NT/XP/Vista, MS Windows Server 2003, Linux, Unix.
Programming Languages: C/C++, Java, Perl, Python, HTML/Javascript, UNIX shell scripts, CUDA (GPGPU programming).
Tools: MS Visual Studio, Netbeans, MS Office, Latex.

RDBMS: MySQL, PostgreSQL.

HONORS AND
AWARDS

Graduate Research Fellowship, ICS-FORTH, Dr. Sotiris Ioannidis, March 2010 – *present.*

Recipient of Student Attendance Grant for the International Symposium On Recent Advances In Intrusion Detection (RAID) at MIT, Cambridge, Massachusetts, USA, Sept 2008.

Graduate Research Fellowship, ICS-FORTH, Prof. Evangelos P. Markatos, October 2006 – September 2008.

Undergraduate Research Fellowship, ICS-FORTH, Prof. Evangelos P. Markatos, July 2005 – September 2006.

Scholarship and award from the National Foundation of Scholarships for ranking *first* at the third year of my undergraduate studies, 2005.

MAJOR PROJECTS

LOBSTER
Lobster is an advanced European Infrastructure for accurate Internet traffic monitoring. It is based on a novel Distributed Monitoring Application Programming Interface which enables the creation of sophisticated applications and empowers a large number of researchers and system administrators into reaching a better understanding of the kind of traffic that flows through their networks.
I primarily involved in the implementation of the programming interface, as well as in the task of fixing the bugs reported by the users and for taking care of enhancements suggested by users.

NoAH
The project, funded by EU, aims to gather and analyse information about the nature of Internet cyberattacks. The infrastructure developed is able to detect and provide early warning of such attacks, so that appropriate countermeasures may be taken to combat them.
I was involved in the implementation of the core infrastructure.

Gnort
Gnort is an intrusion detection system, based on the Snort open-source NIDS, that utilizes the parallel computational power of modern graphics cards to offload the costly pattern matching operations from the CPU, and thus increase the overall processing throughput.
The project developed as part of my master thesis, during my postgraduate studies. My duties included the total development cycle of the project, from design till implementation stage.

Mitos
Mitos is an experimental search engine that was developed in the Computer Science Department of the University of Crete, Greece, as part of the "Information Retrieval Systems" course. It is available online at http://groogle.csd.uoc.gr:8080/mitos/.
I mainly focused on the design and implementation of the indexing process, as well as the optimization on the index performance during the query evaluation process.

Puggle
A graphical desktop search application that was started on my spare time, enabling the user to search documents, music, photos, web pages and more that are stored locally on a computer. It is written in Java and it is portable to both Linux and Microsoft Windows. The project is open-source and it is available online at http://puggle.sourceforge.net.

EXTERNAL SERVICE Program Committee: 7th European Conference on Computer Network Defense (ec2nd 2011)

Reviewer: The Journal of Systems and Software; 1st SysSec Workshop (SysSec 2011); 15th International Conference on Financial Cryptography and Data Security 2011 (FC'11); 16th IEEE Symposium on Computers and Communications (ISCC'11); 9th International Conference on Applied Cryptography and Network Security (ACNS'11); 14th International Symposium on Recent Advances in Intrusion Detection (RAID'2011); IEEE Transactions on Parallel and Distributed Systems (TPDS); Elsevier Microprocessors and Microsystems;

REFEREED
PUBLICATIONS

Giorgos Vasiliadis, Michalis Polychronakis, and Sotiris Ioannidis. Parallelization and Characterization of Pattern Matching using GPUs. In *Proceedings of the IEEE International Symposium on Workload Characterization (IISWC)*. November 2011, Austin, TX, USA.

Giorgos Vasiliadis, Michalis Polychronakis, and Sotiris Ioannidis. MIDeA: A Multi-Parallel Intrusion Detection Architecture. In *Proceedings of the 18th ACM/SIGSAC Computer and Communications Security Conference (CCS)*. October 2011, Chicago, IL, USA.

Giorgos Vasiliadis, Michalis Polychronakis, and Sotiris Ioannidis. GPU-assisted Malware. In *Proceedings of the 5th IEEE International Conference on Malicious and Unwanted Software (MALWARE)*. October 2010, Nancy, France.

Giorgos Vasiliadis and Sotiris Ioannidis. GrAVity: A Massively Parallel Antivirus Engine. In *Proceedings of the 13th International Symposium On Recent Advances In Intrusion Detection (RAID)*. September 2010, Ottawa, Canada.

Giorgos Vasiliadis, Michalis Polychronakis, Spiros Antonatos, Evangelos P. Markatos and Sotiris Ioannidis. Regular Expression Matching on Graphics Hardware for Intrusion Detection. In *Proceedings of the 12th International Symposium On Recent Advances In Intrusion Detection (RAID)*. September 2009, Saint-Malo, France.

Grigoris Antoniou, Antonis Bikakis, Polyvios Damianakis, Mixalhs Foukarakis, Giorgos Iacovidis, Marianna Karmazi, Haridimos Kondylakis, Antreas Makridakis, Giorgos Nikiforos, Grigoris Papadourakis, Manolis Papoutsakis, Aggeliki Psyharaki, Giorgos Stratakis, Panagiotis Tourlakis, Petros Tsialiamanis, Giorgos Vasiliadis, Gerd Wagner and Dimitris Velegrakis. A Multi-agent Environment for Serving Proof Explanations in the Semantic Web. In *Proceedings of the 5th Hellenic Conference on Artificial Intelligent (SETN)*, October 2008, Syros, Greece.

Giorgos Vasiliadis, Spiros Antonatos, Michalis Polychronakis, Evangelos P. Markatos and Sotiris Ioannidis. Gnort: High Performance Network Intrusion Detection Using Graphics Processors. In *Proceedings of the 11th International Symposium On Recent Advances In Intrusion Detection (RAID)*, September 2008, Boston, MA, USA.

OTHER
PUBLICATIONS,
THESES, AND
TECHNICAL
REPORTS

Panagiotis Papadakos, Giorgos Vasiliadis, Yannis Theoharis, Nikos Armenatzoglou, Stella Kopidaki, Yannis Marketakis, Manos Daskalakis, Kostas Karamaroudis, Giorgos Linardakis, Giannis Makrydakis, Vangelis Papathanasiou, Lefteris Sardis, Petros Tsialiamanis, Georgia Troullinou, Kostas Vandikas, Dimitris Velegrakis and Yannis Tzitzikas. The Anatomy of Mitos Web Search Engine. In *CoRR, Information Retrieval, abs/0803.2220*, March 2008

Giorgos Vasiliadis. Improving the Performance of Network Intrusion Detection Systems Using Graphics Processors. *Master Thesis, University of Crete*, November 2008

OTHER PUBLICITY

The Register, Slashdot, HardOCP, etc. coverage of GPU-Assisted Malware study, September 2010

REFERENCES

Prof. Evangelos Markatos, ICS-FORTH (markatos@ics.forth.gr)
Dr. Sotiris Ioannidis, ICS-FORTH (sotiris@ics.forth.gr)