

Georgios Vasilios Magklaras

Curriculum Vitae

Personal Details:

Nationality: Greek (EU) (unlimited Norwegian Residency)
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Gaustadaleen 21, 0349 Oslo, Norway
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Academic and Professional qualifications/memberships:

(May 2005 – July 2011): Doctor of Philosophy PhD (part time): ‘An Insider Misuse Threat Detection and Prediction Language’, Center for Security Communications and Networks Research (CSCAN), School of Computing and Mathematics, University of Plymouth, UK.

(November 2002 – May 2005): Master of Philosophy MPhil (part time): ‘A generic architecture for Intrusion Detection and Insider Misuse in IT systems’, Scholarship funded degree (EPSRC), The Network Research Group, Department of Communication, Electrical and Electronic Engineering, University of Plymouth, UK.

(September 1996 - July 2000): BSc (Honors) (full time) ‘Computer Systems and Networks’ - School of Computing, University of Plymouth, UK: **obtained first class (1:1).**

November 2008: Red Hat Certified Engineer (RHCE): RHEL 5: Certificate Number: 805008309135525 verifiable on-line at the following URL:
<https://www.redhat.com/training/certification/verify/>

Affiliate Member of the Institute of Electrical and Electronic Engineers (IEEE)

Member of the Advanced Computing Systems Association (USENIX)

Distinctions/awards:

The Emerald Literati Network awards for Excellence for 2007: Award given for the paper: “Towards an insider threat prediction specification language” by G.Magklaras, S.M. Furnell and P.J. Brooke, Volume 14 number 4, Journal of Information Management & Computer Security.

Invitation to present a poster at Britain’s Young Engineers event, House of Commons, London, 4 December 2000: “Advanced Authentication and

Intrusion Detection Technologies” by Dowland PS, Furnell SM, Magklaras GB, Papadaki M, Reynolds PL, Rodwell PM, Singh H

Top of the Computer Systems and Networks BSc (Hons) degree (1996-2000) based on Graduation mark, School of Computing, University of Plymouth, July 2000.

Academic and Professional Experience

(September 2002 – Present): Senior Computer Scientist/ Head of IT, full time position, The Biotechnology Center of Oslo, University of Oslo, Norway:

- Having the responsibility to mentor an IT team of 2 people and the scientific responsibility of running a life science computing setup (12 servers, 200 desktops and 2 enterprise data networks) for the Biotechnology Center of Oslo (<http://www.biotek.uio.no>) and the Norwegian Center for Molecular Medicine (<http://www.ncmm.uio.no>).
- EMBnet node manager: Managing the National Bioinformatics Scientific Portal of EMBnet Norway (<http://www.no.embnet.org>) and representing Norway in the Global EMBnet Network.
- Responsible for the data security of sensitive user and scientific (clinical) data in the local IT infrastructure.
- Teaching Bioinformatics courses and workshops as part of the University of Oslo and UiO curriculum for Undergraduate and Postgraduate students from the Biology/Medicine/Computer Science fields.
- Liaising with the national science community in the task of handling computational challenges in the field of life science and writing National and European grant reports for life science computing projects.
- Secure funding for the national EMBnet Node: Written grant applications and for the period 2003-2011 secured approximately 3.6 million Norwegian Kroner (400000 GBP) from funding and service revenue.

(September 2005 – Present): Secretary and Chair (as of June 2010) of the Technical Management Project Committee (TMPC) of the Extended Global Bioinformatics Network (EMBnet – <http://www.embnet.org>). The position was appointed by vote of the EMBnet constituency (members plus Executive Board):

- Mentoring a team of 4-5 people (TMPC) to handle essential aspects of its technical infrastructure (Web servers, Email, DNS).
- Participated in the EMBRACE project (<http://www.embracegrid.info/page.php>) looking into the area of data storage of High Throughput Genomic Data (HTS).

(December 2001 -August 2002): Internet/Linux Cluster Software Engineer, full time contract position, Internet Services Provider (ISP) Video Networks/Homechoice, London, UK. Achievements included:

- Developed a bespoke CISCO and LINUX router high availability/load balancing software with Linux Virtual Server (LVS) and CISCO's Hot Standby Routing Protocol (HSRP) in C, PERL, TCL/TK, using Intel hardware and WAN cards from ImageStream Ltd.
- Improved the data security of the Internet cluster by performing penetration testing (SNORT, NMAP, PERL, EXPECT in TCL/TK) and revising the LINUX 2.2.x kernel configuration of the firewall hosts.
- Responsible for managing the primary production DNS servers for the homechoice.co.uk domain.
- Responsible for running the NIS and DHCP servers of the test platform.
- Responded to a number of security incidents on the live Internet servers.

(September 2000 – November 2001): Computer Security Researcher/Part Time Lecturer, full time position, The Network Research Group, School of Communications and Electronic Engineering, University of Plymouth, Plymouth, Devon, UK: Duties included:

- Developing Insider Misuse Model engines on the UNIX/LINUX platform on PERL and C/C++.
- Lecturing MSc students on C/C++ programming and Network Management Systems.
- Participating in the building and lecturing (theory and lab demonstration) of the Department's first CISCO data communications laboratory.
- Supervision of 3 Master students in Information Security projects and final thesis dissertation.

(December 1999 - January 2000): UNIX and data networks engineer, contract position with IBM UK, Weybridge, Surrey, UK: Duties included:

- Provision of advanced technical support (due to Y2K problems) for DYNIX/AIX and network-related services for large enterprise customers.
- The revision of information security procedures (UNIX and data network penetration testing), advising enterprise customers on how to implement security policies and apply effective procedures to monitor the on-line behavior of employees.

(July 1998 - September 1999): UNIX and data network engineer, University industrial placement position as part of the BSc (Hons) degree, IBM Numa-Q (formerly Sequent Computer Systems), Weybridge, Surrey, UK: Duties included:

- Providing advanced technical support for IBM enterprise customers, resolving DYNIX OS and data networking problems.
- Obtaining specialist knowledge of the TCP/IP protocol (static and dynamic routing, network trace analysis), NFS, Samba, NIS, Sendmail. Troubleshooting of Ethernet, FDDI and Token Ring LAN architectures (cabling, hub/switch configuration) with the CISCO family of products.

- Participating in the development lifecycle of DYNIX/PTX products (product evaluation and debugging, C/C++ coding) and assisting the Operating System developers to track and resolve problems quickly and efficiently (development and implementation of low-level device drivers). Development of the LELIG (Linux EtherLink Integrity Guard) system for Ethernet network card hot-standby availability in TCL/TK and UNIX C (gcc).

Referred Publications in Journals, Conferences and Book Chapters

Ropodi A., Sakkos N., Moschopoulos C., Magklaras G., Kossida S. (2011), "Superclusteroid: a Web tool dedicated to data processing of protein-protein interaction networks", *EMBnet.journal*, Vol 17 No2, pp. 10-15, December 2011.

Magklaras G., Furnell S., Papadaki M. (2011), "LUARM - An audit engine for insider misuse detection, in Proceedings of the 6th International Workshop on Digital Forensics & Incident Analysis (WDFIA 2011), ISBN 978-1-84102-285-7, pp. 133-148. (to appear in the International Journal of Digital Crime and Forensics (IJDCF)).

Magklaras G., Furnell S. (2010), "Insider Threat Specification as a Threat Mitigation Technique," Book Chapter, *Advances in Information Security*, Vol 49: Title: Insider Threats in Cyber Security, Probst, Christian W.; Hunker, Jeffrey; Gollmann, Dieter (Eds.) 2010, XII, 244 p. 40 illus., 20 in color., ISBN 978-1-4419-7132-6, Hardcover, Springer 2010, pp. 219-244.

Razick S., Magklaras G., and Donaldson I. (2008), "iRefIndex: A consolidated protein interaction database with provenance", *BMC Bioinformatics* 2008, 9:405 (30 September 2008).

Ruppelt A., Oberprieler N.G., Magklaras G., and Taskén K. (2007), "Physiological Substrates of PKA and PKG", *Handbook of Cellular Signalling* (Eds Ralph Bradshaw and Edward Dennis). Part II. Transmission: Effectors and Cytosolic Events (Ed. Tony Hunter), Subsection F: Cyclic Nucleotides (Ed. J. Corbin), Elsevier.

Magklaras G., Furnell S., and Brooke P. (2006), "Towards an Insider Threat Prediction Specification Language", *Information Management & Computer Security*, vol. 14, no. 4, pp. 361-381.

Magklaras G., Furnell S. (2005), "A Preliminary Model of End User Sophistication for Insider Threat Prediction in IT Systems", *Computers & Security*, Volume 24, Issue 5, August 2005, pp. 371-380.

Magklaras G., Furnell S. (2004), "The Insider Misuse Threat Survey: Investigating IT misuse from legitimate users", 2004 International Information Warfare Conference, Perth, Australia, 2004.

Magklaras G., Furnell S. (2002), "Insider Threat Prediction Tool: Evaluating the probability of IT misuse", Computers & Security, vol. 21, no. 1, pp. 62-73.

Papadaki M., Magklaras G., Furnell S., Alayed A. (2001), "Security Vulnerabilities and System Intrusions - The need for Automatic Response Frameworks", Proceedings of the IFIP 8th Annual Working Conference on Information Security Management & Small Systems Security, Las Vegas USA, 27-28 September, 2001.

Furnell S., Magklaras G., Papadaki M., Dowland P. (2001), "A Generic Taxonomy for Intrusion Specification and Response", Proceedings of Euromedia 2001, Valencia, Spain, 18-20 April, 2001.

Non-Referred Publications

Magklaras G., Zayas R. (2010), "Training Mexican scientists and students on MRS/EMBOSS: A course report", EMBnet.journal, Vol 16, Issue 1, December 2010, pp. 4-5.

Magklaras G. (2010), "High Throughput Sequencing and the IT architecture Part 1:Volume Dimensioning and Filesystems", Technical Note, EMBnet news periodical, Volume 15 Issue 5, March 2010, pp. 51-55.

Magklaras G. (2005), "Secure Web Browsing: How to safely surf the web.", EMBnet, News Journal, Volume 11, Issue 4, December 2005, pp. 9-13.

Magklaras G., Furnell S. (2001), "Insider IT misuse, South West Journal, British Computer Society South West Branch, 1-3 April 2001.

Dowland PS, Furnell SM, Magklaras GB, Papadaki M, Reynolds PL, Rodwell PM, Singh H. (2000), "Advanced Authentication and Intrusion Detection Technologies", Poster presentation at Britain's Younger Engineers in 2000, House of Commons, London, 4th of December 2000.

Selected Invited Talks/Courses

Invited Speaker at the International Workshops on Bioinformatics 2012, Center for Genomics Sciences, National Autonomous University of Mexico (UNAM):

"The Galaxy workflow" <http://folk.uio.no/georgios/other/GalaxyUNAM2012.pdf>

"MRS for Sysadmins" <http://folk.uio.no/georgios/other/MRSUNAM2012.pdf>

"The NGS IT notes" <http://folk.uio.no/georgios/other/NGSUNAM2012.pdf>

“LUARM - An audit engine for insider misuse detection”, Invited talk given at the Digital Forensics & Incident Analysis WDFIA 2011, Kingston UK, July 2011, <http://folk.uio.no/georgios/other/LUARMWDFIA2011.pdf>

“LUARM and ITPSL: Sensing and specifying insider threats”, Invited talk given at the Insider threats: Strategies for Prevention, Mitigation and Response seminar, Schloss Dagstuhl Leibniz Center for Informatics, Germany, August 2010, <http://folk.uio.no/georgios/other/Dagstuhl2010.pdf>

“Biological Sequence Mining: A case with MRS and EMBOSS”, Invited course given at the Center for Genomic Sciences, UNAM, Mexico, March 2010, <http://www.nnb.unam.mx/content/curso-mrs-emboss-presentacion>

“Data storage considerations for HTS platforms”, Invited talk given at the EMBRACE next generation sequencing workshop in Rome, Italy, November 2009, <http://folk.uio.no/georgios/other/ROMEHTS09.pdf>

“Systematizing Insider Threat Mitigation”, Invited talk given at the Insider threat Schloss Dagstuhl seminar, Leibniz Center for Informatics, Germany, July 2008, <http://folk.uio.no/georgios/other/08302.MagklarasGeorge.Slides.pdf>

“Computer intrusions and insider misuse”, Invited talk given at the British Computer Society South West Branch, Plymouth, UK, 1-3 April 2001.

Journal and Conference reviewing activity

Reviewed articles for the following Journals:

- EMBnet.Journal
- IEEE Security and Privacy
- BMC Bioinformatics
- USENIX “login” journal

Reviewed for the following International Conferences:

- INC2012, Ninth International Network Conference, 10-12 July 2012, Port Elizabeth, South Africa : <http://www.inc2012.org>
- ICICS 2011, Thirteenth International Conference on Information and Communications Security, November 23-26, 2011, Beijing, China: <http://www.icics2011.org/>
- International Conference & Meetings EMBnet-RIBio 2009, “Bioinformatics for High Throughput Technologies and the Interface of Bioinformatics and Systems Biology”, Paradisus Riviera Cancun Resort, Puerto Morelos (Mayan Riviera), Quintana Roo, Mexico, October 26th - 29th, 2009, <http://www.embnet.org/en/EMBnet-RIBio2009/committees>
- EMBnet 2008 20th Anniversary Conference, “Leading applications and technologies in bioinformatics”, September 18-20, 2008, Martina Franca (Puglia), Italy, <http://www.embnet.org/en/node/341>