Name: Dr. Stefanos Zachariadis
D.o.B: 21st of March, 1981
Nationality: Greek
P.o.B: Athens, Greece

Email: stefanos@zachariadis.net
WWW: http://zachariadis.net

Professional Experience

CONSULTANT, Zühlke Engineering: May 2006 - Present Date

Responsibilities : Software Engineering / IT Consulting. Java, J2EE, Test Driven Development, Test Automation, Eclipse Plugin Development. Assignments include M&G/Prudential, Pioneer Investments, UBS Investment Bank.

CONSULTANT, IABG / The European Space Agency (via UCL Consulting): February 2005 - July 2005

Responsibilities : Consulting on the integration of software developed during my PhD studies (SATIN) with programmable satellite networks; the development of media transcoding and intelligent packet dropping in particular. The project website is at
http://telecom.esa.int/telecom/www/object/index.cfm?fobjectid=22363 .

RESEARCH FELLOW, University College London: October 2004 - March 2005

Responsibilities : Researcher on the RUNES (http://ist-runes.org) European Union Project, which aimed to address the research issues in reconfigurable ubiquitous systems. Integrating (successfully) software developed during my PhD studies with the SEINIT European Union project (http://www.seinit.org), which developed a pervasive computing security framework.

TEACHING ASSISTANT, University College London: October 2001 - March 2006

Responsibilities : Teaching programming (Java & Prolog), logic, algorithms, software engineering, unit testing, configuration management at both undergraduate and graduate level.

RESEARCH ASSISTANT, University College London: July 2001 - August 2001

Responsibilities : Further developing and testing XMIDDLE, a mobile computing middleware system.

Education

PHILOSOPHY DOCTORATE IN COMPUTER SCIENCE, September 2001 - May 2005
DEPARTMENT OF COMPUTER SCIENCE, UNIVERSITY COLLEGE LONDON

PhD Thesis: *Adapting Mobile Systems Using Logical Mobility Primitives*
Supervisors: Dr. Cecilia Mascolo & Prof. Wolfgang Emmerich
Fully sponsored by the Engineering and Physical Sciences Research Council of the United Kingdom.

My PhD thesis was on the design and development of mobile systems in modular architectures, using logical (code) mobility to provide adaptation primitives. My hypothesis statement argued that the potential of the ubiquity of mobile computers cannot be realised with the monolithic and static systems that are currently offered. Mobile systems are highly dynamic and mobile applications are executed in a constrained context which is exposed to a changing environment. Changes in the context may dictate changes to the requirements of a system which may need to *adapt* to accommodate those changes. During this work, I have acquired both theoretical knowledge, by developing and formalising a lightweight component model for mobile devices that offers the flexible use of logical mobility to mobile applications, but also practical experience, by implementing a lightweight middleware system in Java 2 Micro Edition which instantiated my component model. I also developed a number of applications using the model and the middleware system. My research led to the development of SATIN, a new type of adaptable system, which has been and still is extensively used. SATIN has been released as open source at `http://satin.sourceforge.net` .

1ST CLASS HONOURS BSC IN COMPUTER SCIENCE, 1998 - 2001
DEPARTMENT OF COMPUTER SCIENCE, UNIVERSITY COLLEGE LONDON

Final Year Project: *Implementing XMIDDLE, an XML-based Platform for Mobile Computing and Ad-Hoc Networking*
Supervisor: Dr. Cecilia Mascolo
Awarded the Praxis Award in Computer Science (Best project of the year).

My final year project was on extending and implementing XMIDDLE, a mobile computing middleware for data sharing and reconciliation to changes in shared data. During this work, I gained theoretical knowledge in designing an extensible system and practical experience in implementing and testing a lightweight mobile middleware system. XMIDDLE has been released as open source at `http://xmiddle.sourceforge.net` and has been used by various research projects.

INTERNATIONAL BACCALAUREATE 1996 - 1998
HELLENIC AMERICAN EDUCATIONAL FOUNDATION (ATHENS COLLEGE), GREECE
Graduating Result (Grade): 40 (out of a maximum of 45)

Other Qualifications, Achievements and Abilities

Sun Certified Enterprise Architect (SCEA) (*part 1 only*) Scored 91%

Sun Certified Java Programmer for Java 5 (SCJP5) Scored 91%

Sun Certified Mobile Application Developer (SCMAD / J2ME) Scored 85%

An adaptable middleware system for sensor networks that I developed (based on work on my PhD thesis) is shipped as a standard part of the Contiki operating system for memory constrained systems (Telos motes port)

In Program Committee for the IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing, 2006 (SUTC2006)

TECHNICAL SKILLS:

- **Programming Languages:** Proficient in Java (J2SE, J2ME, J2EE), Python, C, PHP, Groovy, Bash Scripting, Pascal, Basic, some C#, C++, Cocoa/Objective C and Perl.
- **Specialised Knowledge:** Embedded systems and mobile computing (limited resources) systems development, Eclipse RCP/plugin development, PalmOS, Unix (Linux) and Mote/Sensor (Contiki/TinyOS) Programming, Test Automation, Fit/FitNesse, Unix Administration, Lifecycle support, Ant, CruiseControl, Web Services, SCM systems (Subversion, MKS, ClearCase, CVS).
- **Data Processing and Representation:** SQL, XML, HTML.
- **GUI Programming:** Swing, GTK+, AWT, SWT, JFace, some Cocoa/Interface Builder.

LANGUAGES: native Greek, fluent English (Cambridge Certificate of Proficiency, Grade A), advanced French (French Institute Delf A1-A6) and some German.

Publications

P. Costa, G. Coulson, R. Gold, M. Lad, C. Mascolo, L. Mottola, G.P. Picco, T. Sivaharan, N. Weerasinghe and S. Zachariadis. *The RUNES Middleware for Networked Embedded Systems and its Application in a Disaster Management Scenario*. In. Proc. of 5th IEEE International Conference on Pervasive Computing and Communications (Percom07). March 2007, New York. IEEE Press.

S. Zachariadis, C. Mascolo and W. Emmerich. *The SATIN Component System - A Meta Model For Engineering Adaptable Mobile Systems*. In IEEE Transactions on Software Engineering (TSE), 32(11):910-927.

P. Costa, G. Coulson, C. Mascolo, L. Motolla, G.P. Picco and S. Zachariadis. *A Reconfigurable Component-based Middleware for Networked Embedded Systems*. In International Journal of Wireless Information Networks. Springer. June 2007.

S. Zachariadis, M. Lad, C. Mascolo and W. Emmerich. *Building Adaptable Mobile Middleware Services Using Logical Mobility Techniques*. Invited Book Chapter in Contributions to Ubuiquitous Computing, Studies in Computational Intelligence. Bernd J. Krämer and Wolfgang A. Halang (editors). Vol 42. Springer. 2006.

L. Sacks, H.K. Sellappan, S. Zachariadis, S. Bhatti, P. Kirstein, W. Fritsche, G. Gessler and K. Mayer. *On the Manipulation of JPEG2000, In-Flight Using Active Components on Next Generation Satellites*. In Seventh Annual International Working Conference on Active and Programmable Networks (IWAN05). November 2005, La Cote d'Azur, France.

W. Fritche, K. Mayer, P. Kirstein, S. Bhatti, L. Sacks and S. Zachariadis. *Programmable Active Networking Supporting Next Generation Multimedia Services in Satellite Networks*. In Proc. of International Communications Satellite Systems Conference. September 2005, Rome, Italy

S. Zachariadis, S. Bhatti, W. Fritsche, G. Gessler, P. Kirstein, K. Mayer and L. Sacks. *A Component-Based Active Network System for Satellite Platforms*. In Proc. of IEE London Communications Symposium. September 2005, London, England.

P. Costa, G. Coulson, C. Mascolo, G.P. Picco and S. Zachariadis. *The RUNES Middleware: A Reconfigurable Component-Based Approach to Networked Embedded Systems*. In. Proc. of 16th IEEE International Symposium on Personal Indoor and Mobile Radio Communications (PIMRC05). September 2005, Berlin, Germany.

L. Capra, S. Zachariadis and C. Mascolo. *Q-CAD: QoS and Context Aware Discovery Framework for Adaptive Mobile Systems*. In. Proc. of IEEE Int. Conference on Pervasive Services (ICPS05). July 2005, Santorini, Greece.

S. Zachariadis, C. Mascolo and W. Emmerich. *SATIN: A Component Model for Mobile Self Organisation*. In. Proc. of Int. Symposium on Distributed Objects and Applications (DOA). October 2004, Agia Napa, Cyprus.

S. Zachariadis and C. Mascolo. *Adaptable Mobile Applications Through SATIN: Exploiting Logical Mobility in Mobile Computing Middleware*. In. Proc. of 1st UK-UbiNet Workshop. September 2003, London, United Kingdom.

S. Zachariadis, C. Mascolo and W. Emmerich. *Adaptable Mobile Applications: Exploiting Logical Mobility in Mobile Computing*. In Proc. of 5th Int. Workshop on Mobile Agents for Telecommunication Applications (MATA03). October 2003, Marrakech, Morocco.

S. Zachariadis, C. Mascolo and W. Emmerich. *Exploiting Logical Mobility in Mobile Computing Middleware*. In Proc. of 22nd Int. Conf. on Distributed Computing Systems - WORKSHOPS (ICDCS 2002 Workshops). July 2002, Vienna, Austria.

S. Zachariadis, L. Capra, C. Mascolo, and W. Emmerich . *XMIDDLE: Information Sharing Middleware for a Mobile Environment*. In Demo Session of ACM Proc. Int. Conf. Software Engineering (ICSE02). May 2002. Orlando, USA.

C. Mascolo, L. Capra, S. Zachariadis and W. Emmerich. *XMIDDLE: A Data-Sharing Middleware for Mobile Computing*. In Personal and Wireless Communications Journal, Kluwer. April 2002.

L. Capra, C. Mascolo, S. Zachariadis and W. Emmerich . *Towards a Mobile Computing Middleware: a Synergy of Reflection and Mobile Code Techniques*. In Proc. of the 8th IEEE Workshop on Future Trends of Distributed Computing Systems (FTDCS'2001), October 2001. Bologna, Italy.

Invited Presentations

Adapting Mobile Systems Using SATIN, Software Practice Advancement (SPA), The British Computer Society, September 2006

Engineering Adaptable Mobile Systems Using SATIN, Department of Computing, University of Lancaster, England, May 2005

Adapting Mobile Systems Using Logical Mobility Primitives, The Open University Computing Department, Milton Keynes, England, January 2005

Mobile Self Organisation through the SATIN Component Model, Communications Research Group, Department of Information Technology, Uppsala University, Uppsala, Sweden, June 2004

XMIDDLE & Mobile Healthcare Applications, Institute of Electrical Engineers, London, England, September 2002