

**37 Grosvenor St Apt. 906
Toronto, M4Y 3G5, ON
Canada
M: +1 780 886 6893**

Marios-Eleftherios Fokaefs
marios86gr@gmail.com
<http://www.mariosfokaefs.com>

Education

- **Doctor of Philosophy, Computing Science**, University of Alberta, Edmonton, AB 2010-2015
 - Thesis: WSDarwin: A Comprehensive Framework for Supporting Service-Oriented Systems Evolution
 - Supervisory committee: Eleni Stroulia (supervisor), Jim Hoover, Paul Messinger
 - Examining committee: James Miller, Patrick Martin
- **Master of Science, Computing Science**, University of Alberta, Edmonton, AB 2008-2010
 - Thesis: Identification and Application of Extract Class Refactorings in Object-Oriented Systems
 - Supervisor: Eleni Stroulia
 - GPA: 3.7/4.0
- **Bachelor of Science, Applied Informatics**, University of Macedonia, Thessaloniki, Greece 2004-2008
 - Thesis: A comparative study of software clustering techniques.
 - Supervisor: Alexandros Chatzigeorgiou
 - GPA: 7.99/10

Awards, Distinctions and Fellowships

- CASCON 2016 Best Paper Award: Enabling DevOps for Containerized Data-Intensive Applications: An Exploratory Study 2016
- University of Alberta – Teaching Assistantship award 2013 (honorary award)
- Alberta Ingenuity – Technology Futures scholarship 2013-2014 (\$30,000 p.a.)
- University of Alberta – Provost Doctoral Entrance award 2010-2012 (\$8,500 p.a.)
- IBM fellowship 2010-2013 (\$25,000 p.a.)

Contributions to grant proposals

- SOSCIP-TalentEdge, “An Economics-Aware Autonomic Management System for Big Data Applications”, \$170,000, 2016-2018
- IBM CRD, “Multi goal self-adaptation for micro-service platforms”, 2016-2018

Research Interests / Research Profile

In my research, I mainly focus on software maintenance, evolution, and change management. I have worked on these problems for object-oriented, service-oriented, cloud, cyber-physical and data-intensive systems. I have been studying the evolution of such systems along with its technical, social and economic implications. In the process of my work, I have assimilated techniques and methods from other disciplines and fields, including Data Mining, Machine Learning, Game Theory, Decision Theory and Control Theory.

The goal of my work is to provide software practitioners with a comprehensive view of how software systems evolve, as well as with the appropriate automated tools, including also a careful look at the non-technical aspects (economic and strategic) of software evolution. The overarching intention is to implement principles of the DevOps and NoOps development models, enable continuous development, delivery and integration for modern software systems and bring in the development the business operations side to create successful digital businesses. From an application perspective, I aim to keep a close contact with industrial and academic partners. The goal of this collaboration is twofold; first, to apply all the products of my research as well as the novel techniques of service computing and its siblings (mobile and cloud computing) to applications that will assist partners from various fields (business, health, education etc.). Second, I aim to use these applications as a benchmark to validate and further develop the techniques and methods produced by my research.

Research Experience

- **Research Assistant**, Centre of Excellence for Research in Adaptive Systems, York University, Toronto, ON 2015-present (in the context of the NSERC Strategic Network for Smart Applications on Virtual Infrastructure (SAVI), the ORF Connected Vehicles and Smart Transportations (CVST) project and in collaboration with IBM CAS Toronto and with Fuseforward Solutions Group)
 - Research Subjects
 - Self-adaptive web applications on the cloud
 - Economically aware adaptation strategies
 - Big data for autonomic management systems
 - Controllers for adaptive systems
 - Multi-tier multi-layer data-intensive web applications
 - Containerized cloud applications and microservices
 - Big data storage and analytics
 - Platforms and tools I worked with
 - Openstack (Heat, Ceilometer, Nova, Monasca, Sahara, Neutron)
 - Amazon EC2
 - MySQL
 - Apache Tomcat
 - Apache Load Balancer
 - Apache HBase
 - Apache Cassandra
 - Apache Spark
 - Cloudera
 - IBM Watson Analytics
 - IBM BlueMix
 - Docker
- **Research Assistant**, Service Systems Research Group/Computing Science, University of Alberta, Edmonton, AB 2008-2015
 - Research Subjects
 - Software maintenance and evolution (object- and service-oriented)
 - Collaborative software development
 - Tools produced or extended
 - **JDeodorant**, an Eclipse plug-in to identify code smells in Java code and automatically apply refactorings to resolve the problems.
 - **WSDarwin**, an Eclipse plug-in to support the evolution of web service systems.

- **WikiDev**, a wiki-based platform to support and promote collaboration in software development.
- **Collaboratorium Dashboard**, an IBM Jazz plug-in to visualize and manage data produced from collaborative software development.
- Platforms and tools I worked with
 - Eclipse
 - IBM Jazz
 - Mediawiki
 - Bugzilla
 - Github
 - Open Wonderland
 - Apache Axis2
 - Apache CXF
 - Apache Tomcat
 - Amazon AWS
- **Intern**, Center for Advanced Studies (CAS), IBM, Markham, ON May 2011-August 2011
 - I worked closely with the IBM WebSphere team on the service interface comparison module of WebSphere.
 - This work greatly contributed in the comparison module of WSDarwin.

Teaching/Mentoring Experience

- **Teaching Assistant:** Software Engineering (CMPUT 301), Department of Computing Science, University of Alberta, Edmonton, AB 2009-2012 (5 terms)
 CMPUT 301 is the introductory installment of the series of software engineering courses at the Department of Computing Science. The course focuses on design, implementation and documentation. The students are divided in teams of four and have to complete a term project (common for all teams). My responsibilities included teaching labs (3 hours a week), mentoring 3 to 4 teams (hourly weekly meetings) and marking projects and assignments. Occasionally, I would give a lecture replacing the instructor of the course. The excellence of my teaching is reflected by the nearly perfect reviews I received from my students. More specifically, in Winter 2010, the City of Edmonton, who commissioned the term project, awarded the best-performing team a \$500 prize and also awarded honorary prizes to the second and third team. I mentored all three teams. A number of my former students have found temporary or permanent employment because of their performance in this course.
- **Teaching Assistant:** Teaching and Research Methods (CMPUT 603), Department of Computing Science, University of Alberta, Edmonton, AB Fall 2012
 CMPUT 603 is a graduate course, mandatory for all first year graduate students. Its goal is to prepare new students for graduate school on how to conduct research, write papers, teach and apply for financial support. My responsibilities included preparing assignments and lecture material, marking assignments and assisting students. Occasionally, I would give a lecture replacing the instructor of the course. In recognition of the excellence of my teaching in this course, I received a Teaching Assistantship award by the Faculty of Science.
- **Teaching Assistant:** Software Engineering (CMPUT 401), Department of Computing Science, University of Alberta, Edmonton, AB Winter 2013
 CMPUT 401 is the advanced installment of the series of undergraduate software engineering courses. It focuses on requirements engineering and project management. The students are divided in teams of 5 or 6 and take over a software project

commissioned by an external client (academic or industrial) as their term project for the course. My responsibilities included mentoring 3 teams (hourly weekly meetings), attending and facilitating the meetings between the teams and their respective clients and finally marking the projects. Occasionally, I would give a lecture replacing the instructor of the course or on topics, where I was considered an expert by the instructor (e.g., web services or GitHub).

- **Teaching Expertise**

- I am knowledgeable and feel confident in teaching the following topics:
 - Software Engineering (general)
 - Software Design
 - Software Quality
 - Software Architectures
 - Software Project Management
 - Software Engineering Economics
 - Mining Software Repositories
 - Cloud Computing
 - Big Data
 - Data Analytics
 - Web Software Systems

- **Mentoring Experience**

- I had the opportunity to supervise several project of my supervisor's, Dr Eleni Stroulia, students. Most of these projects produced source code or written reports and one resulted in a publication (WSE'13 with Blerina Bazelli).
- I also mentored two summer/exchange students, Lukas Ziegler, an exchange student from Germany in 2010 and Mihai Oprescu, a summer student from the University of Alberta in 2014. Both students contributed to my work on supporting the evolution of REST application and their work has been submitted to a conference.
- I also mentored Michele Galli, an exchange graduate student from Italy, for his project on collaboration in software development. With Michele, we studied the correlation between developer personalities and sentiments expressed during software development, team cohesion and productivity.
- In CERAS, I am working closely and mentoring a number of PhD and MSc students working mostly on self-adaptive cloud application and Big Data clusters.

Community Involvement / Administrative Activity

- **Lab Manager 2011-2014.** As the SSRG Lab Manager, my responsibilities were to assign desks and office spaces to the lab occupants, monitor the condition of the lab and supervise open lab events and visits.
- **Graduate Advisory Committee 2012-2014.** GAC is a committee of 5-7 graduate students that meet with the Grad Chair every month to discuss issues concerning the graduate students or get updated on the situation of the department or finally provide feedback to the Grad Chair. As a GAC member I tried to keep in touch with other graduate students, listen to their problems and update them on the proceedings of the GAC meetings.
- **Academic Director (Computing Science Graduate Student Association) 2013-2014.** As Academic Director in the CSGSA my responsibilities were to supervise and organize outreach events like open houses, organize invited talks and research meetings between different labs and groups in the Department to share and exchange research ideas.

- **Reviewer.** I have served as a reviewer for a number of conferences and journals including but not limited to CASCON, ICSME, CSMR, ICWS, ICAC, ICDS, CLOUD, Elsevier Journal of Systems and Software, Elsevier Information and Software Technology, IEEE Transactions on Services Computing, ACM Transactions on Software Engineering and Methodology, IEEE Communications Magazine Elsevier Economics-Driven Software Architectures (book). I also served in the Program Committees of the formal demonstrations track for ICSME 2014 and the research tracks for MESOCA 2015, ICSOC 2016, ICA CON 2016.
- **Organizer.** I served as co-chair for the 2016 fall meeting of the Consortium for Software Engineering Research. The consortium brings together Software Engineering researchers across Canada twice a year. The fall meeting is collocated with CASCON.

Publications, Presentations and Abstracts

Publications (citations from Google scholar as of September 2016)

Google scholar profile: <http://scholar.google.ca/citations?user=CFKjCQQAAAAJ&hl=en>

1. Fokaefs, M., Barna, C., Litoiu, M., Wigglesworth, J., "From DevOps to NoOps and the Integration with BizOps: A New Vision for Software Performance Engineering," Internation Conference on Performance Engineering - Work in Progress/Vision, 2017, L'Aquila, Italy (submitted)
2. Fokaefs, M., Barna, C., Litoiu, M., "From DevOps to BizOps: Economic Sustainability for Scalable Cloud Applications," ACM Transactions on Autonomous and Adaptive Systems (submitted)
3. Rouf, Y., Shtern, M., Fokaefs, M., Litoiu, M., "A Hierarchical Architecture for Distributed Security Control of Large Scale Systems," 39th International Conference on Software Engineering – New Ideas and Emerging Results (ICSE-NIER), 2017, Buenos Aires, Argentina (submitted)
4. Barna, C., Litoiu, M., Fokaefs, M., Shtern, M., Wigglesworth, J., "On Developing Linear Quadratic Performance Controllers for Cloud Applications," 39th International Conference on Software Engineering – Software Engineering in Practice (ICSE-SEIP), 2017, Buenos Aires, Argentina (submitted)
5. Fokaefs, M., Barna, C., Litoiu, M., "Multi-Objective Economic Adaptation for Cloud Ecosystems Welfare," 39th International Conference on Software Engineering – Software Engineering in Society (ICSE-SEIS), 2017, Buenos Aires, Argentina (submitted)
6. Barna, C., Khazaei, H., Fokaefs, M., Litoiu, M., "A DevOps Architecture for Continuous Delivery of Containerized Cloud Applications," 39th International Conference on Software Engineering (ICSE), 2017, Buenos Aires, Argentina (submitted)
7. Fokaefs, M., Barna, C., Veleda, R., Litoiu, M., Wigglesworth, J., Mateescu, R., "Enabling DevOps for Containerized Data-Intensive Applications: An Exploratory Study," 26th annual International Conference on Computer Science and Software Engineering Conference (CASCON), 2016, Markham, ON, Canada (best paper award)

8. Fokaefs, M., Barna, C., Litoiu, M., "An Economic Model for Scaling Cloud Applications," 9th IEEE International Conference on Cloud Computing (CLOUD), 2016, San Francisco, CA, USA
9. Fokaefs, M., Serrano, D., Veleda, R., Litoiu, M., "Locality-Enhanced Geographic Information System," 4th International IBM Cloud Academy Conference (ICACON), 2016, Edmonton, AB, Canada
10. Zareian, S., Fokaefs, M., Khazaei, H., Litoiu, M., Zhang, X., "A Big Data Framework for Cloud Monitoring," 2nd International Workshop on BIG Data Software Engineering, 2016, Austin, TX, USA
11. Fokaefs, M., Barna, C., Litoiu, M., "Economics-Driven Resource Scalability on the Cloud," 11th International Symposium on Software Engineering for Adaptive and Self-Managing Systems, pp. 129-139, 2016, Austin, TX, USA [cited by 1]
12. Fokaefs, M., Stroulia, E., "Software Evolution in Web-Service Ecosystems: A Game-Theoretic Model," *INFORMS Service Science*, pp. 1-18, 8 (1), 2016
13. Khazaei, H., Fokaefs, M., Zareian, S., Beigi-Mohammadi, N., Rampasad, B., Shtern, M., Gaikwad, P, Litoiu, M., "How do I choose the right NoSQL solution? A comprehensive theoretical and experimental survey," *Journal of Big Data and Information Analytics (BDIA)*, 2015, AIMS [cited by 4]
14. Barna, C., Fokaefs, M., Litoiu, M., Shtern, M., and Wigglesworth, J., "Cloud Adaptation with Control Theory in Industrial Clouds," *IEEE International Conference on Cloud Engineering (IC2E) 2016 Industry Track*, pp. 231-238 2016, Berlin, Germany
15. Sandel, R., Fokaefs, M., Shtern, M., Khazaei, H., Litoiu, M., "To Default or not to Default: Exposing Limitations to HBase Cluster Deployers," 2015 Conference of the Center for Advanced Studies on Collaborative Research Emerging Technologies Track (CASCON ETT), 2015, Markham, Canada
16. Sandel, R., Shtern, M., Fokaefs, M., Litoiu, M., "Evaluating cluster configurations for big data processing: an exploratory study," 2015 IEEE 9th International Symposium on the Maintenance and Evolution of Service-Oriented and Cloud-Based Environments (MESOCA), 23-30, 2015, Bremen, Germany [cited by 1]
17. Fokaefs, M., Oprescu, M., Stroulia, E., "WSDarwin: A web application for the support of REST service evolution," 2015 IEEE International Conference on Software Maintenance and Evolution (ICSME), 336-338, 2015, Bremen, Germany (video)
18. Fokaefs, M., Stroulia, E., "Using WADL Specifications to Develop and Maintain REST Client Applications," 2015 IEEE International Conference on Web Services (ICWS), 81-88, 2015, New York, USA [cited by 4]
19. Fokaefs, M., "WSDarwin: A Framework for the Support of Web Service Evolution", 2014 IEEE International Conference on Software Maintenance and Evolution, Doctoral Symposium (ICSME DOC 2014), 668, 2014, Victoria, Canada
20. Fokaefs, M., Stroulia, E., "The WSDarwin Toolkit for Service-Client Evolution", 2014 IEEE International Conference on Web Services, Work in Progress (ICWS WIP 2014), 716-719, 2014, Alaska, USA [cited by 1]
21. Fokaefs, M., Stroulia, E., Messinger, P. R., "Software Evolution in the Presence of Externalities: A Game-Theoretic Approach," in *Economics-Driven Software*

- Architecture, I. Mistrik, R. Bahsoon, R. Kazman, K. Sullivan, and Y. Zhang, Eds. Elsevier, 2014, pp. 243-258. [cited by 2]
22. Fokaefs, M., Stroulia, E., WSDarwin: Studying the Evolution of Web Service Systems, *Advanced Web Services*, 199-223, 2014, Springer New York [cited by 10]
 23. Bazelli, B., Fokaefs, M., Stroulia, E., Mapping the Responses of RESTful Services Based on their Values, *15th IEEE International Symposium on Web Systems Evolution (WSE 2013)*, 444-447, 2013, Eindhoven, Netherlands [cited by 2]
 24. Fokaefs, M., Stroulia, E., WSDarwin: A Decision-Support Tool for Web-Service Evolution, *IEEE International Conference on Software Maintenance, Early Research Achievement Track (ICSM ERA 2013)*, 444-447, 2013, Eindhoven, Netherlands [cited by 1]
 25. Fokaefs, M., Stroulia, E., WSMeta: a meta-model for web services to compare service interfaces, *Proceedings of the 17th Panhellenic Conference on Informatics*, 1-8, 2013, Thessaloniki, Greece [cited by 1]
 26. Fokaefs, M., Tsantalis, N., Stroulia, E., Chatzigeorgiou, A., Identification and application of Extract Class refactorings in object-oriented systems, *Journal of Systems and Software*, 85, 10, 2241-2260, 2012, Elsevier [cited by 35]
 27. Fokaefs, M., Stroulia, E., WSDarwin: automatic web service client adaptation. *CASCON*, 176-191, 2012, Markham, ON, Canada [cited by 13]
 28. Fokaefs, M., Mikhael, R., Tsantalis, N., Stroulia, E., Lau, A., An empirical study on web service evolution, *IEEE International Conference on Web Services (ICWS)*, 49-56, 2011, Washington, DC, USA [cited by 54]
 29. Fokaefs, M., Tsantalis, N., Stroulia, E., Chatzigeorgiou, A., JDeodorant: identification and application of extract class refactorings, *33rd International Conference on Software Engineering (ICSE)*, 1037-1039, 2011, Honolulu, Hawaii, USA [cited by 41]
 30. Fokaefs, M., Tansey, B., Ganey, V., Bauer, K., Stroulia, E., WikiDev 2.0: facilitating software development teams, *14th European Conference on Software Maintenance and Reengineering (CSMR)*, 276-277, 2010, Madrid, Spain [cited by 6]
 31. Fokaefs, M., Serrano, D., Tansey, B., Stroulia, E., 2D and 3D visualizations in WikiDev2.0, *IEEE International Conference on Software Maintenance (ICSM)*, 1-5, 2010, Timisoara, Romania [cited by 7]
 32. Bauer, K., Fokaefs, M., Tansey, B., Stroulia, E., WikiDev 2.0: discovering clusters of related team artifacts, *Proceedings of the 2009 Conference of the Center for Advanced Studies on Collaborative Research (CASCON)*, 174-187, 2009, Markham, ON, Canada [cited by 14]
 33. Fokaefs, M., Tsantalis, N., Chatzigeorgiou, A., Sander, J., Decomposing object-oriented class modules using an agglomerative clustering technique, *IEEE International Conference on Software Maintenance (ICSM)*, 93-101, 2009, Edmonton, AB, Canada [cited by 39]
 34. Fokaefs, M., Bauer, K., Stroulia, E., WikiDev 2.0: Web-based software team collaboration, *ICSE Workshop on Wikis for Software Engineering (WIKIS4SE'09)*, 67-77, 2009, Vancouver, BC, Canada [cited by 2]
 35. Fokaefs, M., Tsantalis, N., Chatzigeorgiou, A., JDeodorant: Identification and removal of feature envy bad smells, *IEEE International Conference on Software Maintenance (ICSM 2007)*, 519-520, 2007, Paris, France [cited by 55]

Formal Presentations

1. CASCON Expo, Toronto, November 2016: A DevOps Architecture for Continuous Delivery of Containerized Cloud Applications (Best Expo Award)

2. CASCON Workshop on Continuous Software Engineering, Toronto, November 2016: From DevOps to NoOps and the integration with BizOps
3. 8th CASCON Workshop on Cloud Computing, Toronto, November 2016: A DevOps Architecture for Continuous Delivery of Containerized Cloud Applications
4. CASCON '16, Toronto, November 2016: Enabling DevOps for Containerized Data-Intensive Applications: An Exploratory Study
5. IEEE CLOUD '16, San Francisco, CA, June 2016: An Economic Model for Scaling Cloud Applications
6. CSER Spring Meeting '16, Edmonton, June 2016: Economics-aware cloud scaling: An evolutionary research process
7. ICA CON '16, Edmonton, June 2016: Locality-Enhanced Geographic Information System
8. SEAMS '16, Austin, TX, May 2016: Economics-driven resource scalability on the cloud
9. BIGDSE '16, Austin, TX, May 2016: A big data framework for cloud monitoring
10. Engineering Cyber Physical Systems CASCON '15, Toronto, November 2015: Connected Vehicles and Smart Transportation- Distributing Data and Computation
11. 7th CASCON Workshop on Cloud Computing, Toronto, November 2015: Cloud Engineering Economics: The autoscaling problem
12. CASCON '15 Emerging Technologies Track, Toronto, November 2015: To Default or not to Default: Exposing Limitations to HBase Cluster Deployers
13. CASCON '15 Technical Showcase, Toronto, November 2015: Evaluating Cluster Configurations for Big Data Processing: An Exploratory Study (XaaS) (poster)
14. CASCON '15 Technical Showcase, Toronto, November 2015: Evaluating Cluster Configurations for Big Data Processing: An Exploratory Study (XaaS) (poster)
15. CASCON '15 Technical Showcase, Toronto, November 2015: Engineering Economics of Everything-as-a-Service (XaaS) (poster)
16. CSER Fall Meeting '15, Toronto, November 2015: Software Engineering Economics: The Cloud Case Study
17. SAVI AGM, Toronto, July 2015: Engineering Economics of Everything-as-a-Service (XaaS) (poster)
18. SAVI AGM, Toronto, July 2015: Evaluating Cluster Configurations for Big Data Processing: An Exploratory Study (poster)
19. ICWS 2015, New York, June 2015: Using WADL Specifications to Develop and Maintain REST Client Applications
20. IBM CAS University Days 2015, Toronto, April 2015: ecoHEAT: An economically conscious self-adaptation platform
21. CASCON'14 Technical Showcase, Toronto, November 2014: WSDarwin: A Web Application for the Support of REST Service Evolution (tool demo)
22. ICSME '14, Doctoral Symposium, Victoria, Canada, September 2014: WSDarwin: A Framework for the Support of Web Service Evolution
23. CSER Spring Meeting '14, Edmonton, May 2014: Consortium on Web Service Research; Benchmarking web service research (workshop).
24. CSER Spring Meeting '14, Edmonton, May 2014: WSDarwin2REST: Supporting REST Client Service Evolution.
25. CASCON '13 Technical Showcase, Toronto, November 2013: WSDarwin: Supporting Service Evolution on the Client Side (tool demo)
26. CSER Meeting '13, Toronto, November 2013: The "Iceberg" of Web Service Evolution
27. WSE'13, Eindhoven, Netherlands, October 2013: Mapping the Responses of RESTful Services Based on their Values

28. ICSM'13, Eindhoven, Netherlands, October 2013: Interactive Exploration of the Collaborative Software-Development Data (tool demo)
29. ICSM ERA'13, Eindhoven, Netherlands, October 2013: WSDarwin: A Decision-Support Tool for Web-Service Evolution
30. PCI'13, Thessaloniki, Greece, September 2013: WSMeta: a meta-model for web services to compare service interfaces
31. CASCON '12, Toronto, November 2012: WSDarwin: automatic web service client adaptation
32. CSER Meeting '12, Toronto, November 2012: WSDARWIN: Web-Service Evolution as a Business Strategic Decision
33. CASCON '11, Workshop on Automatic Service Composition, Toronto, November 2011: Towards Automated Client Adaptation
34. CSER Meeting '11, Toronto, November 2011: An Empirical Study on Web Service Evolution
35. ICWS '11, Washington, July 2011: An Empirical Study on Web Service Evolution
36. ICWS '11, Washington, July 2011: Smit, M., Stroulia E., "Automated State-Space Exploration for Configuration Management of Service-Oriented Applications," In Proceedings of the 9th IEEE International Conference on Web Services (Washington DC, USA, July 4-9, 2011). ICWS '11. pp. 468-475
37. ICSE '11, Hawaii, May 2011: JDeodorant: Identification and Application of Extract Class Refactorings
38. Collaborative Teaching of Globally Distributed Software Development (CTGDSD) ICSE '11 Workshop, Hawaii, May 2011: Stroulia E., Bauer K., Craig M., Reid K., and Wilson G., "Teaching Distributed Software Engineering with UCOSP: The Undergraduate Capstone Open-Source Project"
39. "Issues and Challenges leveraging REST architectural style in Enterprise Service Systems", CASCON 2010 Workshop, Toronto, November 2010: Pattern-Based composition of Service Systems.
40. CSER Meeting 2010, Toronto, October 2010: WikiDev 2.0
41. "Service Interaction Patterns" CASCON 2009 Workshop, Toronto, November 2009: Identification of Service Interaction Patterns.
42. CASCON '09, Toronto, November 2009: WikiDev 2.0: Discovering Clusters of Related Team Artifacts
43. ICSM '09, Edmonton, September 2009: Decomposing Object-Oriented Class Modules Using an Agglomerative Clustering Technique
44. ICSM '07, Paris, October 2007: JDeodorant tool demonstration

Invited Presentations

1. Toronto, Ontario, Canada, November 2016: "A DevOps Architecture for Continuous Delivery of Containerized Cloud Applications" in the Department of Electrical and Computer Engineering at the University of Toronto
2. Montreal, Quebec, Canada, January 2016: "Web Software Evolution and Change Management on the Cloud" at Department of Computer Science and Operation Research at the Universite de Montreal.
3. Montreal, Quebec, Canada, November 2014: I presented the WSDarwin web application for the support of REST service clients to faculty and students at Ecole Polytechnique de Montréal.
4. Toronto, Ontario, Canada, November 2014: I presented the WSDarwin decision-support system and my work on service evolution economics to faculty and students at Ryerson University.

5. York, Ontario, Canada, November 2014: I presented the WSDarwin decision-support system and my work on service evolution economics to faculty and students at York University.
6. Montreal, Quebec, Canada, February 2014: I presented the WSDarwin toolkit and decision-support system to faculty and students at Ecole Polytechnique de Montréal.
7. Oshawa, Ontario, Canada, November 2013: I presented my work on WSDarwin as a decision-support tool to faculty and students from the Faculties of Business and IT and Computer Science, at the University of Ontario Institute of Technology.
8. Heraklion, Greece, August 2013: I presented my work on WSDarwin as a decision-support tool to the group of Dr. Christos Nikolaou in the Department of Computer Science at the University of Crete.
9. Athens, Greece, August 2013: I presented my work on WSDarwin as a decision-support tool to the group of Dr. Diomidis Spinellis in the Department of Management Science and Technology at Athens University of Economic and Business.
10. Thessaloniki, Greece, December 2012: I gave a presentation on graduate studies in Canada in the Department of Applied Informatics at the University of Macedonia.
11. IBM CAS, Toronto, November 2011: I presented my work on Web Service Evolution and Automatic Client Migration to IBM researchers from the IBM Websphere team.
12. IBM CAS University Days, Toronto, September 2009: In this meeting organized by the IBM Center for Advanced Studies in Toronto, I gave a short presentation about my research on "Service Interaction Patterns"

Skills

Technical Skills

- **Eclipse plug-in development.** 6 years of experience. I have worked on two plug-ins JDeodorant and WSDarwin. The tools made extensive use of the Eclipse Java Development Toolkit (JDK) and the Language Toolkit (LTK)
- **Java development.** 9 years of experience. Java is my language of choice. Almost all of my applications have been developed in Java.
- **Mobile development (Android).** Basic experience. I am knowledgeable on the subject, but I have only developed a few small applications.
- **Service-oriented Architectures.** Extensive experience. I have been working on the subject for 5 years. Although I was not involved in the development of any major system, I have studied the subject extensively. I have experience with tools like Apache Axis2, Apache CXF, JAX-RS, JAX-WS and Apache Tomcat.
- **Information Retrieval/Machine Learning.** Extensive experience. I have attended numerous courses on the subject and I have used several techniques in my research. These techniques include clustering, classification, text mining, association rules and dimensionality reduction.
- **Information visualization.** Basic experience. I have used tools and techniques to visualize data in 2D and 3D mainly in my work on software development collaboration.
- **Game Theory.** Extensive experience. I have attended numerous courses on the subject and I have used Game Theory extensively in my research.
- **Cloud platforms.** Extensive experience. I have deployed applications and performed experiments in Amazon EC2. I have also worked in extending the Openstack cloud platform. I have working experience with Docker containers.
- **Control Theory.** Basic experience. I have studied and worked on the application of control theory in Software Engineering problems, like self-adaptive cloud systems.

- **Python development.** Basic experience. I have been using python for my work with Openstack.
- **Big data storage and analytics platforms.** Intermediate experience. I have extensively studied the domain of NoSQL databases, with particular focus on wide-column stores. I have practical and experimental experience with Apache HBase, Apache Cassandra and Apache Spark.
- **Big data analytics.** Intermediate experience. I have worked with Apache Spark in developing and deploying analytics jobs in Java.

Communication skills

- **Excellent presentation skills.** I have given numerous presentations and practice has made me better. I was asked in many occasions to present the work of colleagues and I was successful even though I was not entirely acquainted with the work.
- **Excellent writing skills.** I have written a significant number of papers and I feel very comfortable with writing academic texts in English.
- **Excellent mentoring skills.** My teaching experience was very valuable to my mentoring skills and I have used this experience with junior graduate students.
- **Teamwork.** I have worked in many occasions with colleagues on research projects, which resulted in success due to our good communication and organization.
- **Leadership.** In team efforts, I naturally assume a leading role especially when I feel knowledgeable on the subject. Also, as a teaching assistant I have lead my teams to develop software projects of excellent quality.
- **Initiative.** I am very resourceful and resolute. I am able to work under minimum supervision and guidance and undertake my own projects.

Language skills

- **Greek.** Native speaker.
- **English.** Proficient in Writing, Reading, Speaking and Understanding. (Cambridge English: Proficiency (CPE) (2005), ETS TOEFL (2008) and IELTS General Training (2015))
- **French.** Basic level in Writing, Reading, Speaking and Understanding. (Delf level B2 (2002))

Interests

In my leisure time, I particularly enjoy reading books and playing video games. I also have a great passion for sports, both playing and watching, with particular interest to soccer and basketball. In fact, my passion for soccer and video games led me to Computer Science, where I developed my first video game a year after I started my BSc. Since my young adulthood and recently, I have become considerably interested in matters of economy, society, history, philosophy and politics. This was motivated largely by the Eurozone Crisis, in which Greece was right in the middle, and the events surrounding it.

References

- **Marin Litoiu**, Associate Professor of Information Technology, York University, 4700 Keele Street, Toronto, Ontario, M3J 1P3
Phone: 416-736-2100 x20987
Email: mlitoiu@yorku.ca

- **Eleni Stroulia**, Professor of Computing Science, University of Alberta, Canada.
Dept. of Computing Science, 221 Athabasca Hall, University of Alberta, Edmonton,
AB, T6G 2E8, Canada
Phone: 1 780 492 3520
E-mail: stroulia@ualberta.ca
- **Hausi A. Müller** Professor, Associate Dean Research, Ph.D., P.Eng.
Faculty of Engineering, Department of Computer Science, University of Victoria
Engineering/Computer Science Building (ECS), ECS 504 (for courier)
University of Victoria, P.O. Box 3055, STN CSC, Victoria, BC V8W 3P6 Canada
Phone: 1-250-472-5719
Fax: 1-250-472-5708
E-mail: hausi@cs.uvic.ca
- **Alexander Chatzigeorgiou**, Associate Professor of Applied Informatics, University of
Macedonia, Greece.
University of Macedonia, Dept. of Applied Informatics, 156 Egnatia Str., 54006
Thessaloniki, Greece
E-mail: achat@uom.edu.gr
- **Paul R. Messinger**, Associate Professor of Marketing, School of Business, University
of Alberta, Canada.
University of Alberta, 3-20E Business, Edmonton, AB, Canada T6G 2R6
Phone: 1-780-492-3954
E-mail: emartine@ualberta.ca
- **Ken Wong**, Associate Professor of Computing Science, University of Alberta,
Canada.
Dept. of Computing Science, 221 Athabasca Hall, University of Alberta
Edmonton, AB, T6G 2E8, Canada
Phone: 1-780-492-5202
E-mail: kennyw@ualberta.ca