



George-Dimitrios Kapos

Software Engineer - Researcher on Evaluation in MBSE

PERSONAL SUMMARY

A versatile personality that combines a successful professional software engineering career and research activity on MBSE, focusing on system model evaluation:

- A software analyst, architect, designer and developer with extensive experience in developing applications of the banking/financial domain with UML, Java, web-services, XML and SQL (Oracle).
- A researcher on automation of system model evaluation in MBSE, utilizing MDA concepts and standards (MOF, UML, SysML, QVT) and simulation. Having co-authored several research papers, he is currently at the final stage of his PhD on this subject.
- An adjunct lecturer in relevant postgraduate studies program courses.

Eager for the research and practical advances of IT (from the first years as a BSc student until now), he has been joyfully promoting his professional effectiveness from the adoption of innovative techniques, while, on the other hand, reinforcing his research activity with the experience gained from real world projects.

ACADEMIC QUALIFICATIONS

PhD: "A Model-oriented Approach for Automating Simulation of SysML System Models" (with Honors)

Dept. of Informatics & Telematics, Harokopio University of Athens: 2016

MSc on "Advanced Information Systems" with Honors

Dept. of Informatics & Telecommunications, National Kapodistrian University of Athens: 2002

BSc with Honors

Dept. of Informatics & Telecommunications, National Kapodistrian University of Athens: 1999

WORK EXPERIENCE

Greek Consignments & Deposits Fund - IT Dept.

Software Engineer / Analyst / Developer from 2006 to present

Objectives: Analysis, Software Design, Software Development, Data Modeling,

AREAS OF EXPERTISE

Software Engineering

Analysis

Software Design

Software Development

Model Transformations

MBSE

Simulation

Data manipulation

TECHNOLOGIES

UML/SysML

MOF

QVT

XML

Web Services

Java

SQL

PL/SQL

PERSONAL DETAILS

Georgios-Dimitrios Kapos

Athens - GREECE

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Data Cleansing, Reporting

Technologies: UML, Java (EE, SE, JSF, JSP), Web-Services, XML, Workflows, ER, Oracle SQL & PL/SQL

National Kapodistrian University of Athens

Adjunct Lecturer in the Inter-Department Postgraduate Studies Program “Health Informatics” from 2016 to present

Course: NURS289: Information Systems Development Methodologies

Harokopio University Of Athens - Dept. Of Informatics & Telematics

Adjunct Lecturer in Postgraduate Studies Program from 2012 to present

Course: MSC-8: Application Development, Software Engineering and Information Systems Development Methods

Course: MSC-10: Information Systems Technologies

projectglobe ltd

Modelling Expert from 1/2016 to 6/2016

Objectives: Support the Conceptual Design Activity (CDA) for the DEMO fusion power plant (EuroFusion), in terms of providing SysML tutorials, modelling parts of the power plant, designing a systems development methodology, requirements analysis for system development software

Greek Agricultural Insurance Organization - IT Dept.

Analyst / Developer from 2004 to 2006

Objectives: Analysis, Software Design, Software Development, Data Modeling, Data Cleansing, Reporting

Technologies: UML, Java, Web-Services, XML, JSP, HTML, Workflows, ER, Oracle SQL & PL/SQL

Harokopio University Of Athens

Research Associate from 2002 to 2004

Objectives: Digital content & services development, teleteaching management, network services enhancement, simulation lab training

Technologies: HTML, XML, Javascript, PHP, Apache, MySQL, Lotus/Domino

National Kapodistrian University Of Athens - Dept. Of Informatics &

Telecommunications

Research Associate in ADDSIA & MISSION EU funded research projects from 1999 to 2001

Objectives: Distributed, Heterogeneous Database Homogenization

Technologies: Java, XML, Software Agents, Variety of RDBMSs (Oracle, Ingres, Sybase)

KEY SKILLS AND COMPETENCIES

- Acquainted and experienced with advances in software engineering & development, MDA and MBSE.
- Combination of research abilities and practical experience.
- Work experience in diverse environments.
- Ability to transfer knowledge to other team members.
- Fluent use of english, spoken and written.

REFERENCES

Available on request.

PUBLICATIONS

Journals

- Advances in Computer Science: an International Journal, 2016, 5(4), 49-56, "Challenges in SysML Model Simulation", Mara Nikolaidou, George-Dimitrios Kapos, Anargyros Tsadimas, Vassilis Dalakas, Dimosthenis Anagnostopoulos
- Simulation Modelling Practice and Theory (SIMPAT), Elsevier, Volume 66, August 2016, pages 243-259, "Simulating Simulation-Agnostic SysML Models for Enterprise Information Systems via DEVS", A. Tsadimas, G.-D. Kapos, V. Dalakas, M. Nikolaidou, D. Anagnostopoulos
- SIMULATION: Transactions of The Society for Modeling and Simulation International, SAGE Publications, Volume 90, Issue 6, June 2014, pages 717-744, "An Integrated Framework for Automated Simulation of SysML Models using DEVS", G.-D. Kapos, V. Dalakas, M. Nikolaidou, D. Anagnostopoulos
- International Journal on Artificial Intelligence Tools, World Scientific, Vol. 11, No. 1 (March 2002), "Agents for Querying Distributed Statistical Databases over the Internet", S. McClean, I. Karali, B. Scotney, K. Greer, G.-D. Kapos, R. Pairceir, J. Hong, D. Bell, M. Hatzopoulos

Book Chapters

- Casas, Pau Fonseca i. "Formal Languages for Computer Simulation: Transdisciplinary Models and Applications." IGI Global, 2014. 1-458. Web. 1 Jul. 2013, Chapter "10. An Integrated Framework to Simulate SysML Models Using DEVS Simulators", G.-D. Kapos, V. Dalakas, M. Nikolaidou, D. Anagnostopoulos, (pages 305-332)

Conferences / Workshops

1. 12th Annual IEEE International Systems Conference (IEEE SysCon 2018), Vancouver, Canada, 23-26 April 2018, "Exploring LoS in Railway Transportation Systems using SysML", Christos Kotronis, Mara Nikolaidou, Anargyros Tsadimas, George Dimitrios Kapos, Dimosthenis Anagnostopoulos
2. IEEE International Conference on Systems, Man, and Cybernetics (IEEE SMC 2016), Budapest, Hungary, 9-12 October 2016, "Simulating SysML Transportation Models", Christos Kotronis, Anargyros Tsadimas, George-Dimitrios Kapos, Vassilis Dalakas, Mara Nikolaidou, Dimosthenis Anagnostopoulos
3. IEEE International Symposium on Systems Engineering (IEEE ISSE 2016), Edinburgh, Scotland, 4-5 October 2016, "Reducing the Cost and Complexity of Variant Exploration with MBSE & LSP", C. Allen, M. Di Maio, G.-D. Kapos, N. Klusmann
4. IEEE International Symposium on Systems Engineering (IEEE ISSE 2016), Edinburgh, Scotland, 4-5 October 2016, "MDDP: A Pragmatic Approach to Managing Complex and Complicated MBSE Models", C. Allen, M. Di Maio, G.-D. Kapos, N. Klusmann
5. 11th International Conference on System of Systems Engineering (IEEE SoSE 2016), Kongsberg, Norway, 12-16 June 2016, "Challenges in the Modelling of Design Alternatives with MBSE", M. Di Maio, G.-D. Kapos, N. Klusmann, C. Allen
6. 10th International Conference on System of Systems Engineering (IEEE SoSE 2015), San Antonio, TX, USA, 17-20 May 2015, "Simulating SysML Models: Overview and Challenges", M. Nikolaidou, G.-D. Kapos, A. Tsadimas, V. Dalakas and D. Anagnostopoulos
7. 9th International Conference on Research Challenges in Information Science (IEEE RCIS 2015), Athens, Greece, 13-15 May 2015, "Enabling

System Models Automated Evaluation through Cross-Concept Information Utilization”, G.-D. Kapos

8. IEEE 9th International System of Systems Engineering Conference (IEEE SoSE 2014), Adelaide, Australia, 9-13 June 2014, “Integrating Simulation Capabilities into SysML for Enterprise Information System Design”, A. Tsadimas, G.-D. Kapos, V. Dalakas, M. Nikolaidou, D. Anagnostopoulos
9. 8th Annual IEEE International Systems Conference (IEEE SysCon 2014), Ottawa, Canada, 31 March-3 April 2014, “Model-based System Engineering using SysML: Deriving Executable Simulation Models with QVT” (**Best Student Paper Award - Honorable Mention**), G.-D. Kapos, V. Dalakas, A. Tsadimas, M. Nikolaidou, D. Anagnostopoulos
10. 7th International Conference on Systems of Systems Engineering (IEEE SOSE 2012), Genova, Italy, 16-19 July 2012, “Basic Guidelines for Simulating SysML Models: An Experience Report”, M. Nikolaidou, G.-D. Kapos, V. Dalakas, D. Anagnostopoulos
11. Third International Conference on Software Engineering Advances (ICSEA 2008), Sliema, Malta, 26-31 October 2008, "A SysML Profile for Classical DEVS Simulators", M. Nikolaidou, V. Dalakas, L. Mitsi, G.-D. Kapos, D. Anagnostopoulos
12. 16th International Conference on Software Engineering and Data Engineering (SEDE 2007), Las Vegas, Nevada, USA, 9-11 July 2007, "A UML2.0 profile for DEVS: Providing code generation capabilities for simulation", M. Nikolaidou, V. Dalakas, G.-D. Kapos, L. Mitsi, D. Anagnostopoulos
13. 15th International Conference on Software Engineering and Data Engineering (SEDE 2006), Los Angeles, California, USA, 6-8 July 2006, "Establishing a Common Modeling Framework using UML to Effectively Support Faster-Than-Real-Time Simulation" (**Best Paper Award**), M. Nikolaidou, V. Dalakas, D. Anagnostopoulos, G.-D. Kapos
14. Winter Simulation Conference 2005, Orlando, USA, 4-7 December 2005, "Introducing a UML model for faster-than-real-time simulation", D. Anagnostopoulos, G.-D. Kapos, V. Dalakas, M. Nikolaidou
15. IADIS International Conference WWW/Internet 2004, 6-9 October 2004, Madrid, Spain, “HERMES: A WEB-BASED GENERIC CSCW PLATFORM”, G.-D. Kapos, A. Tsalgatidou, M. Nikolaidou
16. 17th International Conference on Parallel and Distributed Computing

- Systems PDCS-2004, 15-17 September 2004, San Francisco, U.S.A., "A WEB SERVICE-BASED PLATFORM FOR CSCW OVER HETEROGENEOUS END-USER APPLICATIONS", G.-D. Kapos, A. Tsalgatidou, M. Nikolaidou
17. 5th EUROSIM Congress on Modelling and Simulation, Special Session: Modeling and Simulation of Object Based Software Systems, 6-10 September 2004, Paris, France, "An RT-UML model for building Faster-than-Real-Time-Simulators", D. Anagnostopoulos, V. Dalakas, G.-D. Kapos, M. Νικολαΐδου
 18. 5th International Conference on Electronic Commerce and Web Technologies (EC-Web 2004), 30 August-3 September 2004, Saragosa, Spain, "Seamless Federation of Heterogeneous Service Registries", T. Pilioura, G.-D. Kapos, A. Tsalgatidou
 19. CAISE 2004 Forum, June 2004, Riga, Latvia, "A Scalable Infrastructure for Unified Publication and Discovery in Heterogeneous Service Registries", T. Pilioura, G.-D. Kapos, A. Tsalgatidou
 20. 14th International Workshop on Research Issues on Data Engineering (RIDE WS-ECEG'2004), 28-29 March 2004, Boston, U.S.A., "PYRAMID-S: A Scalable Infrastructure for Semantic Web Service Publication and Discovery", T. Pilioura, G.-D. Kapos, A. Tsalgatidou
 21. EKA'02 Workshop on Ontologies for Multi-Agent Systems, 30 September 2002, Sigüenza, Spain, "Agent-based query processing of heterogeneous distributed statistical data via an ontology server", S. McClean, I. Karali, B.Scotney, K. Greer, G.-D. Kapos, R. Pairceir, J. Hong, D. Bell, M. Hatzopoulos
 22. IEEE Workshop on Future Trends in Distributed Computing Systems, 20 - 22 December 1999, Cape Town, South Africa, "Distributed Information Systems Tailorability: A Component Approach", D. Theotolkis, G.-D. Kapos, C. Vasilakis, A. Sotiropoulou, G. Giftodimos
 23. Panhellenic Information Technology Conference, 26-29 August 1999, Ioannina, Greece, "Designing Tailorable Information Systems Using a Component Focused Role Model (CFRM)", N. Dragios, G.-D. Kapos, S. Mantzouranis, D. Theotolkis, G. Giftodimos