

Curriculum Vitae --- Dr. Joey Paquet

1 Personal Information

Joey PAQUET

Born August 31, 1970

Canadian citizen, re-married, father of two children (born 1998 and 2000)

Professional Address

Concordia University, Sir George Williams Campus
Department of Software Engineering and Computer Science
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Degrees

1999	Ph.D., Computer Science Title: Intensional Scientific Programming Universite Laval, Quebec, Canada.
1995	M.Sc., Computer Science Title: Relational databases as multidimensional dataflow Universite Laval, Quebec, Canada.
1993	B.Sc., Computer Science Universite Laval, Quebec, Canada.
1989	Collegial Diploma, Pure and Applied Sciences CEGEP de Sept-Iles, Quebec, Canada.

Fields of Interest (professional)

design and implementation of programming languages; history of programming languages; parallel/distributed programming languages and execution architectures; service-oriented computing; context-aware computing; demand-driven computing; software engineering; software process; teaching programming languages.

Fields of Interest (personal)

history of humanity; history of science; history of technology; military history; philosophy; parenting; psychology; sociology.

Hobbies

reading; listening to music; woodworking; hiking; fantasy role playing games.

2 Positions Held

2004-	Tenured Associate Professor, Department of Software Engineering and Computer Science, Concordia University, Montreal, Canada.
2000-2004	Assistant Professor, Computer Science Department, Concordia University, Montreal, Canada.
1998-2000	Lecturer, Computer Science Department, Concordia University, Montreal, Canada.
1998-2002	Consultant, <i>OS Communications Informatiques</i> . Topic of contribution: <i>Implementation of documentation standards and processes for intranet, internet and wireless web applications development following the CMM model.</i>
1997-1998	Research Assistant, School of Computer Science and Engineering, University of New South Wales, Sydney, Australia,
1994-1997-	Member of the administration council of the Association of Graduate Students in Computer Science at Universite Laval, Quebec, Canada. President from 04-1995 until 04-1996.

3 Teaching Record

Computer Science Department, Concordia University, Montreal, Canada		
Course	Semester taught	Total
COMP 442/6421	F98, W00, W01, F01, W02, W03, W07, F08, W12, W13, W14, W15, W16, W17, W18, W19, W20. W21, W22	19
COMP 345	F07, W08, F09, F10, F11, F13, F14, F15, F16, F17, F18, F19, F20, F21	14
SOEN 6441	W06, F06, W07, W09, W10, W11, F11, F12, F14, W16, W17, F17, F18, F19, W21	15
COMP 354	W01, S01, S02, F02, F03, W04, F05	7
COMP 6411	W99, W10, W11, W12, W13, W14	6
SOEN 341	F03, F04, W04, W05, F05, F06	6
COMP 248	F98, W99, W03, S03, W06	5
COMP 5541	S99, F99, F00, S01	4
SOEN 342	F00, F01, F02	3
SOEN 490	F05-W06	1
COMP 229	W99	1
COMP 6471	W00	1
Number of courses taught		82
Number of different courses taught		12
Number of graduate course taught		44
Number of Software Engineering courses taught		25

4 Awards

Awarded

- [1] Gina Cody School of Engineering and Computer Science Teaching Excellence Award, 2022.

Nominations

- [1] Gina Cody School of Engineering and Computer Science Teaching Excellence Award, 2021.
- [2] Gina Cody School of Engineering and Computer Science Teaching Excellence Award, 2020.

5 Research Record

Research Grants

External

- [3] NSERC Discovery Grant, five years (2018-2023) at \$23,000/year. Title: *Dynamic Context-Aware Service Composition, Brokerage and Monitoring in Service-Oriented Computing*.
- [4] NSERC Discovery Grant, five years (2011-2016) at \$20,000/year. Title: *Context-awareness and demand-driven evaluation in heterogeneous distributed systems*.
- [5] NSERC Discovery, one year (2009-2010) at \$15,000. Title: *Design and Implementation of a General Intensional Programming Environment*.
- [6] NSERC Discovery, five years (2005-2009) at \$12,000/year. Title: *Design and Implementation of a General Intensional Programming Environment*.
- [7] NSERC Discovery, four years (2000-2004) at \$12,000/year. Title: *Design and Implementation of a General Intensional Programming Environment*.

Publications

Publications in Refereed Journals

- [1] Touraj Laleh, Joey Paquet, Serguei A. Mokhov, Yuhong Yan. Constraint verification failure recovery in web service composition. *Future Generation Comp. Syst.* 89: 387-401 (2018). doi: 10.1016/j.future.2018.06.037
- [2] Amine Boukhtouta, Serguei A. Mokhov, Nour-Eddine Lakhdari, Mourad Debbabi and Joey Paquet: Network Malware Classification Comparison Using DPI and Flow Packet Headers. In: *Journal of Computer Virology and Hacking Techniques*. Volume 11, Number 3. Springer. May 2016. doi: 10.1007/s11416-015-0247-x
- [3] Sleiman Rabah, May El Barachi, Nadjia Kara, Rachida Dssouli and Joey Paquet. A service oriented broker-based approach for dynamic resource discovery in virtual networks. *Journal of Cloud Computing* 2015, 4:3. doi: 10.1186/s13677-015-0029-5.

Publications in Refereed Conference Proceedings

- [1] Rostislav Axamitnyy, Alexander Aric, Serguei A. Mokhov, Joey Paquet, and Sudhir P. Mudur. OpenISS IoT Camera Simulation Environment for Real-time IoT Forensics and Incident Response. *ISNCC 2020*. doi: 10.1109/ISNCC49221.2020.9297280

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- [2] Peyman Derafshkavian, Serguei A. Mokhov and Joey Paquet. Toward Scalable Demand-Driven JSON-to-Forensic Lucid Encoder in GIPSY. ISNCC 2020. doi: 10.1109/ISNCC49221.2020.9297224
 - [3] Jashanjot Singh, Serguei A. Mokhov and Joey Paquet. Enabling Real-time Gesture Recognition Data Delivery over ROS and OpenISS. ISNCC 2020. doi: 10.1109/ISNCC49221.2020.9297239
 - [4] Serguei A. Mokhov, Jashanjot Singh, Haotao Lai, Konstantinos Psimoulis and Joey Paquet. OpenISS as a Near-Realtime Composable Broadcast Service for Performing Arts and Beyond. ISNCC 2020. doi: 10.1109/ISNCC49221.2020.9297201
 - [5] Jyotsana Gupta, Joey Paquet, Serguei A. Mokhov. Composite Web Services as Dataflow Graphs for Constraint Verification. CLOSER 2020: 282-291. doi: 10.5220/0009342302820291
 - [6] Touraj Laleh, Joey Paquet, Serguei Mokhov, Yuhong Yan. Constraint Adaptation in Web Service Composition. The 14th IEEE International Conference on Services Computing (SCC 2017), Honolulu, Hawaii, USA, June 2017. doi: 10.1109/SCC.2017.27
 - [7] Touraj Laleh, Joey Paquet, Serguei Mokhov, Yuhong Yan. Predictive Failure Recovery in Constraint-aware Web Service Composition. The 7th International Conference on Cloud Computing and Services Science. Porto, Portugal, April 2017. doi: 10.5220/0006313802410252
 - [8] Touraj Laleh, Esteban Garro, Jashanjot Singh, Gurpreet Raju, Muhammad Usman, Serguei A. Mokhov, Joey Paquet. Demand-Driven SOA Simulation Platform Based on GIPSY for Context-Based Brokerage (poster). The 14th International Conference on Service Oriented Computing (ICSOC 2016), Banff, Canada, October 2016. doi: 10.1007/978-3-319-48472-3_26
 - [9] Touraj Laleh, Joey Paquet, Serguei Mokhov, Yuhong Yan. Efficient Constraint Verification in Service Composition Design and Execution. Lecture Notes in Computer Science 10033. CoopIS 2016: 24th International Conference on Cooperative Information Systems, Rhodes, Greece.
 - [10] Touraj Laleh, Serguei A. Mokhov, Joey Paquet and Yuhong Yan: Context-Aware Cloud Service Brokerage: A Solution to the Problem of Data Integration Among SaaS Providers. In: Proceedings of the Eighth International C* Conference on Computer Science and Software Engineering (C3S2E'15), Yokohoma, Japan. ACM, July 2015.
 - [11] Touraj Laleh, Arash Khodadadi, Serguei A. Mokhov, Joey Paquet, Yuhong Yan: Toward Policy-Based Dynamic Context-Aware Adaptation Architecture for Web Service Composition. In: Proceedings of the Seventh International C* Conference on Computer Science and Software Engineering (C3S2E'14), Montreal, Canada. ACM, August 2014. p.23 doi: 10.1145/2641483.2641528.
 - [12] Serguei A. Mokhov, Michael J. Assels, Joey Paquet, Mourad Debbabi: Toward Automated MAC Spoofer Investigations. In: Proceedings of the Seventh International C* Conference on Computer Science and Software Engineering (C3S2E'14), Montreal, Canada. ACM, August 2014. p.27 doi: 10.1145/2641483.2641540.
 - [13] Serguei A. Mokhov, Joey Paquet and Mourad Debbabi. "The Use of NLP Techniques in Static Code Analysis to Detect Weaknesses and Vulnerabilities". In: Proceedings of the Canadian Conference on AI 2014, Montreal, Canada. Lecture Notes in Computer Science #8436, Springer. May 2014, pp. 326-332. doi: 10.1007/978-3-319-06483-3_33.

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- [14] Joey Paquet, Sleiman Rabah and Serguei Mokhov. "An Interactive Graph-Based Automation Assistant: A Case Study to Manage the GIPSY's Distributed Multi-tier Run-Time System". In: Proceedings of the 2013 Conference on Research in Adaptive and Convergent Systems (RACS 2013), Montreal, Canada, Oct. 2013. doi: 10.1145/2513228.2513286.
- [15] M. El Barachi et al. "A multi-service multi-role integrated information model for dynamic resource discovery in virtual networks". In: Wireless Communications and Networking Conference (WCNC 2013), Shanghai, China. IEEE Computer Society, Apr. 2013, pp. 4777-4782. doi: 10.1109/WCNC.2013.6555349.
- [16] Serguei A. Mokhov, Joey Paquet, and Mourad Debbabi. "Reasoning About a Simulated Printer Case Investigation with Forensic Lucid". In: Digital Forensics and Cyber Crime. Ed. by Pavel Gladyshev and Marcus K. Rogers. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering 88. Springer Berlin Heidelberg, Oct. 2012, pp. 282-296. doi: 10.1007/978-3-642-35515-8_23.
- [17] Yi Ji, Serguei A. Mokhov, and Joey Paquet. "Unifying and Refactoring DMF to Support Concurrent Jini and JMS DMS in GIPSY". In: Proceedings of the Fifth International C* Conference on Computer Science and Software Engineering (C3S2E'12), Montreal, Canada. ACM, June 2012, pp. 36-44. isbn: 978-1-4503-1084-0. doi: 10.1145/2347583.2347588.
- [18] Serguei A. Mokhov, Joey Paquet, and Mourad Debbabi. "On the Need for Data Flow Graph Visualization of Forensic Lucid Programs and Forensic Evidence, and their Evaluation by GIPSY". In: Proceedings of the Ninth Annual International Conference on Privacy, Security and Trust (PST'11), Montreal, Canada. IEEE Computer Society, July 2011, pp. 120-123. doi: 10.1109/PST.2011.5971973.
- [19] Bin Han, Serguei A. Mokhov, and Joey Paquet. "Advances in the Design and Implementation of a Multi-Tier Architecture in the GIPSY Environment with Java". In: Proceedings of the 8th IEEE/ACIS International Conference on Software Engineering Research, Management and Applications (SERA 2010), Montreal, Canada. IEEE Computer Society, May 2010, pp. 259-266. doi: 10.1109/SERA.2010.40.
- [20] Serguei A. Mokhov and Joey Paquet. "A Type System for Higher-Order Intensional Logic Support for Variable Bindings in Hybrid Intensional-Imperative Programs in GIPSY". In: Proceedings of the 8th IEEE/ACIS International Conference on Software Engineering Research, Management and Applications (SERA 2010), Montreal, Canada. IEEE Computer Society, May 2010, pp. 921-928. doi: 10.1109/ICIS.2010.156.
- [21] Serguei A. Mokhov and Joey Paquet. "Using the General Intensional Programming System (GIPSY) for Evaluation of Higher-Order Intensional Logic (HOIL) Expressions". In: Proceedings of the 8th IEEE/ACIS International Conference on Software Engineering Research, Management and Applications (SERA 2010), Montreal, Canada. IEEE Computer Society, May 2010, pp. 101-109. doi: 10.1109/SERA.2010.23.
- [22] Serguei A. Mokhov, Joey Paquet, and Mourad Debbabi. "Towards Automatic Deduction and Event Reconstruction Using Forensic Lucid and Probabilities to Encode the IDS Evidence". In: Recent Advances in Intrusion Detection. Ed. by Somesh Jha, Robin Sommer, and Christian Kreibich. Vol. 6307. Lecture Notes in Computer Science (LNCS). Springer Berlin Heidelberg, 2010, pp. 508-509. isbn: 978-3-642-15511-6. doi: 10.1007/978-3-642-15512-3_36.
- [23] Serguei A. Mokhov et al. "Towards a Self-Forensics Property in the ASSL Toolset". In: Proceedings of Proceedings of the Third C* Conference on Computer Science and Software

- Engineering (C3S2E'10), Montreal, Canada. ACM: New York, NY, USA, May 2010, pp. 108-113. isbn: 978-1-60558-901-5. doi: 10.1145/1822327.1822342.
- [24] Aihua Wu, Joey Paquet, and Serguei A. Mokhov. "Object-Oriented Intensional Programming: Intensional Java/Lucid Classes". In: Proceedings of the 8th IEEE/ACIS International Conference on Software Engineering Research, Management and Applications (SERA 2010), Montreal, Canada. IEEE Computer Society, May 2010, pp. 158-167. doi: 10.1109/SERA.2010.29.
- [25] Serguei A. Mokhov, Joey Paquet, and Mourad Debbabi. "Reasoning About a Simulated Printer Case Investigation with Forensic Lucid (abstract)". In: Proceedings of the Huntsville Simulation Conference (HSC'09), Huntsville, Alabama, USA. Ed. by Joseph S. Gauthier. The Society for Modeling and Simulation International (SCS), Oct. 2009, p. 45. isbn: 978-1-61738-587-2.
- [26] Serguei A. Mokhov, Joey Paquet, and Mourad Debbabi. "Towards Automated Deduction in Blackmail Case Analysis with Forensic Lucid". In: Proceedings of the Huntsville Simulation Conference (HSC'09), Huntsville, Alabama, USA. Ed. by Joseph S. Gauthier. The Society for Modeling and Simulation International (SCS), Oct. 2009, pp. 326-333. isbn: 978-1-61738-587-2.
- [27] Serguei A. Mokhov, Joey Paquet, and Xin Tong. "A type system for hybrid intensional-imperative programming support in GIPSY". In: Proceedings of the 2nd Canadian Conference on Computer Science and Software Engineering (C3S2E'09), Montreal, Canada. 2009, pp. 101-107. isbn: 978-1-60558-401-0. doi: 10.1145/1557626.1557642.
- [28] Joey Paquet. "Distributed Eductive Execution of Hybrid Intensional Programs". In: Proceedings of the 33rd Annual IEEE International Computer Software and Applications Conference (COMPSAC'09), Seattle, Washington, USA. IEEE Computer Society, July 2009, pp. 218-224. isbn: 978-0-7695-3726-9. doi: 10.1109/COMPSAC.2009.137.
- [29] N. Tudoroiu, V. Cretu, and J. Paquet. "Investigations using the rational unified process (RUP) diagrams for software process modeling". In: International Multiconference on Computer Science and Information Technology 2009 (IMCSIT '09), Mragowo, Poland. Oct. 2009, pp. 523-530. doi: 10.1109/IMCSIT.2009.5352791.
- [30] Emil Vassev, Amir Hossein Pourteymour and Joey Paquet. "Design and Implementation of Demand Migration Systems in GIPSY". In: Proceedings of the 2008 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'08), Las Vegas, USA. CSREA Press, July 2008, pp. 900-907. isbn: 1-60132-084-1.
- [31] Serguei A. Mokhov, Joey Paquet, and Mourad Debbabi. "Formally Specifying Operational Semantics and Language Constructs of Forensic Lucid". In: Proceedings of the IT Incident Management and IT Forensics (IMF'08), Mannheim, Germany. Ed. by Oliver Gobel et al. Vol. 140. LNI. GI, Sept. 2008, pp. 197-216. isbn: 978-3-88579-234-5.
- [32] Joey Paquet, Serguei A. Mokhov, and Xin Tong. "Design and Implementation of Context Calculus in the GIPSY Environment". In: Proceedings of the 32nd Annual IEEE International Computer Software and Applications Conference (COMPSAC 2008), Turku, Finland. IEEE Computer Society, July 2008, pp. 1278-1283. doi: 10.1109/COMPSAC.2008.200.
- [33] Emil Vassev, Michael G. Hinchey, and Joey Paquet. "Towards an ASSL Specification Model for NASA Swarm-Based Exploration Missions". In: Proceedings of the 23rd Annual ACM Symposium on Applied Computing (SAC 2008), Fortaleza, Ceara, Brazil. ACM: New York, NY, USA, Mar. 2008, pp. 1652-1657. doi: 10.1145/1363686.1364079.

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- [34] Emil Vassev, Mike Hinchey, and Joey Paquet. "A Self-Scheduling Model for NASA Swarm-Based Exploration Missions using ASSL". In: Proceedings of the Fifth IEEE International Workshop on Engineering of Autonomic and Autonomous Systems (EASE'08), Belfast, Northern Ireland. IEEE Computer Society, Apr. 2008, pp. 54-64. isbn: 0-7695-3140-7. doi: 10.1109/EASE.2008.14.
- [35] Emil Vassev and Joey Paquet. "Towards Autonomic GIPSY". In: Proceedings of the Fifth IEEE Workshop on Engineering of Autonomic and Autonomous Systems (EASE 2008), Belfast, Northern Ireland. Apr. 2008, pp. 25-34. isbn: 0-7695-3140-7. doi: 10.1109/EASE.2008.9.
- [36] Hadi Otrok et al. "Testing Intrusion Detection Systems in MANET: A Comprehensive Study". In: Proceedings of the Fifth Annual Conference on Communication Networks and Services Research (CNSR'07), Fredericton, Canada. May 2007, pp. 364-371. isbn: 0-7695-2835-X. doi: 10.1109/CNSR.2007.62.
- [37] Amir Hossein Pourteymour, Emil Vassev, and Joey Paquet. "Towards a New Demand-Driven Message-Oriented Middleware in GIPSY". In: Proceedings of The 2007 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'07), Las Vegas, USA. Vol. 1. CSREA Press, June 2007, pp. 91-97. isbn: 1-60132-020-5.
- [38] Emil Vassev, Olga Ormandjieva, and Joey Paquet. "ASSL Specification of Reliability Self-Assessment in the AS-TRM". In: Proceedings of the Second International Conference on Software and Data Technologies (ICSOFT 2007), Barcelona, Spain. July 2007, pp. 198-206. isbn: 978-989-8111-06-7.
- [39] Emil Vassev and Joey Paquet. "ASSL - Autonomic System Specification Language". In: Proceedings of the 31st Annual IEEE/NASA Software Engineering Workshop (SEW-31 2007), Loyola College, Culumbia, MD, USA. NASA/IEEE. IEEE Computer Society, Mar. 2007, pp. 300-309. doi: 10.1109/SEW.2007.97.
- [40] Emil Vassev and Joey Paquet. "Towards an Autonomic Element Architecture for ASSL". In: Proceedings of the 29th IEEE International Conference on Software Engineering / Software Engineering for Adaptive and Self-managing Systems (ICSE 2007 SEAMS), Minneapolis, MN, USA. IEEE Computer Society, May 2007, p. 4. doi: 10.1109/SEAMS.2007.21.
- [41] Emil Vassev and Joey Paquet. "Aspects of Memory Management in Java and C++". In: Proceedings of the International Conference on Software Engineering Research and Practice & Conference on Programming Languages and Compilers (SERP 2006), Las Vegas, Nevada, USA. Vol. 2. CSREA Press, June 2006, pp. 952-958. isbn: 1-932415-91-2.
- [42] Emil Vassev and Joey Paquet. "Evaluation Issues in Generic Programming with Inheritance and Templates in C++". In: Proceedings of the International Conference on Software Engineering Research and Practice & Conference on Programming Languages and Compilers (SERP 2006), Las Vegas, Nevada, USA. Vol. 2. CSREA Press, June 2006, pp. 940-944. isbn: 1-932415-91-2.
- [43] Emil Vassev et al. "Reactive, distributed and autonomic computing aspects of AS-TRM". In: Proceedings of The 1st International Conference on Software and Data Technologies (ICSOFT2006), Setubal, Portugal. Ed. by Joaquim Filipe, Boris Shishkov, and Markus Helfert. INSTICC Press, Sept. 2006, pp. 196-202. isbn: 972-8865-69-4.
- [44] Kaiyu Wan, Vasu Alagar, and Joey Paquet. "An Architecture for Developing Context-Aware Systems". In: Modeling and Retrieval of Context. Ed. by Thomas R. Roth-Berghofer, Stefan Schulz, and David B. Leake. Vol. 3946. Lecture Notes in Computer Science. Springer Berlin Heidelberg, 2006, pp. 48-61. isbn: 978-3-540-33587-0. doi: 10.1007/11740674_4.
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- [45] Vasu S. Alagar, Joey Paquet, and Kaiyu Wan. "Intensional Programming for Agent Communication". In: Declarative Agent Languages and Technologies II. Ed. by Joao Leite et al. Vol. 3476. Lecture Notes in Computer Science. Springer Berlin Heidelberg, 2005, pp. 239-255. doi: 10.1007/11493402_14.
- [46] Peter Grogono, Serguei Mokhov, and Joey Paquet. "Towards JLucid, Lucid with Embedded Java Functions in the GIPSY". In: Proceedings of the 2005 International Conference on Programming Languages and Compilers (PLC 2005), Las Vegas, USA. CSREA Press, June 2005, pp. 15-21. isbn: 1-932415-75-0.
- [47] Serguei Mokhov and Joey Paquet. "General Imperative Compiler Framework within the GIPSY". In: Proceedings of the 2005 International Conference on Programming Languages and Compilers (PLC 2005), Las Vegas, USA. CSREA Press, June 2005, pp. 36-42. isbn: 1-932415-75-0.
- [48] Serguei Mokhov and Joey Paquet. "Objective Lucid - First Step in Object-Oriented Intensional Programming in the GIPSY". In: Proceedings of the 2005 International Conference on Programming Languages and Compilers (PLC 2005), Las Vegas, USA. CSREA Press, June 2005, pp. 22-28. isbn: 1-932415-75-0.
- [49] Joey Paquet and Ai Hua Wu. "GIPSY - A Platform for the Investigation on Intensional Programming Languages". In: Proceedings of the 2005 International Conference on Programming Languages and Compilers (PLC 2005), Las Vegas, USA. CSREA Press, June 2005, pp. 8-14. isbn: 1-932415-75-0.
- [50] Emil Vassev and Joey Paquet. "A General Architecture for Demand Migration in a Demand-Driven Execution Engine in a Heterogeneous and Distributed Environment". In: Proceedings of the 3rd Annual Communication Networks and Services Research Conference (CNSR 2005), Halifax, Canada. IEEE Computer Society, May 2005, pp. 176-182. doi: 10.1109/CNSR.2005.9.
- [51] Emil Vassev and Joey Paquet. "A Generic Framework for Migrating Demands in the GIPSY's Demand-Driven Execution Engine". In: Proceedings of the 2005 International Conference on Programming Languages and Compilers (PLC 2005), Las Vegas, USA. CSREA Press, June 2005, pp. 29-35. isbn: 1-932415-75-0.
- [52] Kaiyu Wan, Vasu Alagar, and Joey Paquet. "A Context Theory for Intensional Programming". In: Workshop on Context Representation and Reasoning (CRR05), Paris, France. July 2005.
- [53] Kaiyu Wan, Vasu Alagar, and Joey Paquet. "Lucx: Lucid Enriched with Context". In: Proceedings of the 2005 International Conference on Programming Languages and Compilers (PLC 2005), Las Vegas, USA. CSREA Press, June 2005, pp. 48-56. isbn: 1-932415-75-0.
- [54] Kaiyu Wan, Vasu Alagar, and Joey Paquet. "Real Time Reactive Programming in Lucid Enriched with Contexts". In: Theoretical Aspects of Computing - ICTAC 2004. Ed. by Zhiming Liu and Keijiro Araki. Vol. 3407. Lecture Notes in Computer Science. Springer Berlin Heidelberg, 2005, pp. 387-402. isbn: 978-3-540-25304-4. doi: 10.1007/978-3-540-31862-0_28.
- [55] Ai Hua Wu and Joey Paquet. "Object-Oriented Intensional Programming in the GIPSY: Preliminary Investigations". In: Proceedings of the 2005 International Conference on Programming Languages and Compilers (PLC 2005), Las Vegas, USA. CSREA Press, June 2005, pp. 43-47. isbn: 1-932415-75-0.
- [56] Joey Paquet and Ai Hua Wu. "Requirements and framework of the general intensional programming system". In: Proceedings of the Eighth International Conference on Computer
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- Supported Cooperative Work in Design (CSCW 2004), Xiamen, China. Vol. 2. May 2004. doi: 10.1109/CACWD.2004.1349273.
- [57] Joey Paquet, Aihua Wu, and Peter Grogono. "Towards a Framework for the General Intensional Programming Compiler in the GIPSY". In: Proceedings of the 19th Annual ACM Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA 2004), Vancouver, Canada. ACM: New York, USA, Oct. 2004, pp. 164-165. isbn: 1-58113-833-4. doi: 10.1145/1028664.1028731.
- [58] Ai Hua Wu and Joey Paquet. "The translator generation in the general intensional programming complier". In: Proceedings of the Eighth International Conference on Computer Supported Cooperative Work in Design (CSCW 2004), Xiamen, China. Vol. 2. May 2004. doi: 10.1109/CACWD.2004.1349274.
- [59] Bo Lu, Peter Grogono, and Joey Paquet. "Distributed execution of multidimensional programming languages". In: Proceedings of the 15th IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS 2003), Marina del Rey, USA. Ed. by T. Gonzales. Vol. 1. ACTA Press, Nov. 2003, pp. 284-289. isbn: 0-88986-392-X.
- [60] Ai Hua Wu, Joey Paquet, and Peter Grogono. "Design of a Compiler Framework in the GIPSY System". In: Proceedings of the 15th IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS 2003), Marina del Rey, USA. Ed. by T. Gonzales. Vol. 1. ACTA Press, Nov. 2003, pp. 320-328. isbn: 0-88986-392-X.
- [61] Joey Paquet and Peter Kropf. "The GIPSY Architecture". In: Proceedings of Distributed Computing on the Web, Quebec City, Canada. Ed. by Peter G. Kropf et al. Vol. 1830. Lecture Notes in Computer Science. Springer Berlin Heidelberg, 2000, pp. 144-153. doi: 10.1007/3-540-45111-0_17.
- [62] Jean-Raymond Gagne, Joey Paquet, and John Plaice. "Indexical Translation of Tail-recursive Functions". In: Intensional Programming II. Ed. by Panos Rondogiannis and Manolis Gergatsoulis. World Scientific, Singapore, 1999, pp. 292-295.
- [63] Joey Paquet and John Plaice. "The Semantics of Dimensions as Values". In: Intensional Programming II. Ed. by Panos Rondogiannis and Manolis Gergatsoulis. World Scientific, Singapore, 1999, pp. 259-273.
- [64] Joey Paquet and John Plaice. "Dimensions and functions as values". In: Proceedings of the Eleventh International Symposium on Lucid and Intensional Programming, Sun Microsystems, Palo Alto, USA. Ed. by Bill Wadge. May 1998, pp. 74-78.
- [65] Joey Paquet and John Plaice. "Visual presentation of multidimensional dataflow programs". In: Proceedings of the Eleventh International Symposium on Lucid and Intensional Programming, Sun Microsystems, Palo Alto, USA. Ed. by Bill Wadge. May 1998, pp. 79-88.
- [66] Joey Paquet and John Plaice. "Towards an intensional scientific programming methodology". In: Proceedings of the Tenth International Symposium on Lucid and Intensional Programming, University of Victoria, Canada. Ed. by Bill Wadge. 1997, pp. 1-10.
- [67] Joey Paquet and John Plaice. "The Intensional Relation". In: Intensional Programming I. Ed. by Edward A. Ashcroft and Mehmet A. Orgun. World Scientific, Singapore, 1996, pp. 214-227.
- [68] John Plaice and Joey Paquet. "Introduction to Intensional Programming". In: Intensional Programming I. Ed. by Edward A. Ashcroft Mehmet and A. Orgun. World Scientific, Singapore, 1996, pp. 1-14.
- [69] Joey Paquet. "Relational databases as multidimensional dataflow". MSc thesis. Department of Computer Science, Laval University, Sainte-Foy, Canada, 1995

- [70] Joey Paquet and John Plaice. "On the Design of an Indexical Query Language". In: Proceedings of the Seventh International Symposium on Lucid and Intensional Programming, SRI International, Menlo Park, USA. Ed. by Edward A. Ashcroft. 1994, pp. 28-36.

Other Publications

- [1] Joey Paquet. *Intensional scientific programming*. PhD Thesis, Departement d'Informatique, Universite Laval, Quebec, Canada, April 1999.
- [2] Joey Paquet. *ParAnimal: Parallel automatic nonlinear image matching and anatomical labeling*. Technical Report. School of Computer Science and Engineering, The University of New South Wales, Sydney, Australia, 1998.
- [3] Joey Paquet. *Relational databases as multidimensional dataflow (in French)*. Master's Thesis, Departement d'Informatique, Universite Laval, Quebec, Canada, 1995.

Contributions to Practical Applications of Knowledge

- [1] Joey Paquet, Alain Bond, Frederic Lannoye. *DIONYSOS: Outil web de gestion de processus de developpement*. Technical Report OS-M1008-X-1.0, OS Communications Informatiques, Montreal, Canada, 2002.
- [2] Joey Paquet. *Processus de developpement*. Technical Report OS-M1006-X-1.0, OS Communications Informatiques, Montreal, Canada, 2002.
- [3] Joey Paquet. *Directives de programmation*. Technical Report OS-M1007-X-1.0, OS Communications Informatiques, Montreal, Canada, 2002.
- [4] Joey Paquet. *PHONOS: software development methodology for web-driven mobile phone applications*. Technical Report OS-M1003-X-0.2, OS Communications Informatiques, Montreal, Canada, 2001.
- [5] Joey Paquet. *Exercices de formation sur Web Objects*. Technical Report OS-M1004-X-2.0, OS Communications Informatiques, Montreal, Canada, 2001.
- [6] Joey Paquet. *Rapid application development*. Technical Report OS-M1005-X-0.1, OS Communications Informatiques, Montreal, Canada, 2001.
- [7] Joey Paquet. *Movie management system for Omnium Canadien Bell: Requirements and specifications document*. Technical Report OS-P1001-B-1.1, OS Communications Informatiques, Montreal, Canada, 2001.
- [8] Joey Paquet. *Movie management system for Omnium Canadien Bell: Project postmortem document*. Technical Report OS-P1001-Z-1.1, OS Communications Informatiques, Montreal, Canada, 2001.
- [9] Joey Paquet. *Documentation standard: Project postmortem document*. Technical Report OS-S1001-Z-1.0, OS Communications Informatiques, Montreal, Canada, 2001.
- [10] Joey Paquet. *The capability maturity model of software development*. Technical Report OS-M1001-X-1.0, OS Communications Informatiques, Montreal, Canada, 2000.
- [11] Joey Paquet. *OS communications informatiques: Software engineering practices*. Technical Report OS-M1002-X-1.0, OS Communications Informatiques, Montreal, Canada, 2000.

Contribution to the Training of Highly Qualified Personnel

Graduate Thesis Supervision --- Completed

PhD

- [1] Touraj Laleh. *Context Verification and Adaptation in Web Service Composition*. Ph.D., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2018.
- [2] Serguei Mokhov. *Intensional Cyberforensics*. Ph.D., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2013.
- [3] Aihua Wu. *OO-IP Hybrid Language Design and a Framework Approach to the GIPC*, Ph.D., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2009.
- [4] Emil Vashev. *Autonomic Systems Specification Language*. Ph.D., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2008.
- [5] Kaiyu Wan. *Lucx: Lucid Enriched with Context* PhD, Computer Science Department, Concordia University, Montreal, Canada, 2006.

MSc

- [1] Jashanjot Singh. *Universal Gesture Tracking Framework in OpenISS and ROS*. M.Sc., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2020.
- [2] Haotao Lai. *An OpenISS Framework Specialization for Deep Learning-based Person Re-identification*. M.Sc., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2019.
- [3] Yiran Shen. *Toward a flexible facial analysis framework in OpenISS for visual effects*. M.Sc., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2019.
- [4] Jyotsana Gupta. *Execution/Simulation of Context/Constraint-aware Composite Services using GIPSY*. M.Sc. thesis, Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2019.
- [5] Alexandre Simard. *A Framework for Interoperability Across Heterogeneous Service Description Models*. M.Sc., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2019.
- [6] Yiran Shen. M.Sc., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2019.
- [7] Haotao Lai. M.Sc., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2019.
- [8] Jyotsana Gupta. *Execution/Simulation of Context/Constraint-aware Composite Services using GIPSY*. M.Sc., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2019.
- [9] Arash Khodadadi. *Collection and Classification of Services and their Context*. M.Sc. Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2015.
- [10] Sleiman Rabah. *A Broker-Based Resource Publication and Discovery Framework for Network Virtualization Environment*. M.Sc., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2013.

- [11] Yi Ji. *Scalability Evaluation of the GIPSY Runtime System*. M.Sc., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2011.
- [12] Han Bin. *Implementation of a Scalable Demand-driven Execution Environment in the GIPSY*. M.Sc., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2010.
- [13] Xin Tong. *Context Calculus in the GIPSY*. M.Sc., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2008.
- [14] Amir Pourteymour. *Comparative Study of Demand Migration Framework Implementation Using JMA and Jini*. M.Sc., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2008.
- [15] Serguei Mokhov. *Towards Hybrid Intensional Programming with JLucid, Objective Lucid, and General Imperative Compiler Framework in the GIPSY*, M.Sc. thesis, Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2005.
- [16] Emil Vassev. *General Architecture for Demand Migration in the GIPSY Demand-Driven Execution Engine*, M.Comp.Sc, Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2005.
- [17] Elena Tudoroiu. *Software process modeling: Investigations using the RUP*, Master's Thesis, Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2005.
- [18] Yi Min Ding. *Bi-directional translation between dataflow graphs and Lucid programs in the GIPSY environment*, Master's Thesis, Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2004.
- [19] Lei Tao. *Warehouse and garbage collection in the GIPSY environment*, Master's Thesis, Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada, 2004.
- [20] Aihua Wu. *Semantic checking and translation in the GIPSY Environment*, M.Comp.Sc thesis, Computer Science Department, Concordia University, Montreal, Canada, 2002.
- [21] Chun Lei Ren. *Parsing and abstract syntax tree generation for indexical Lucid in the GIPSY Environment*, M.Comp.Sc thesis, Computer Science Department, Concordia University, Montreal, Canada. 2002.
- [22] Lin Fang Wang. *Experiment on software documentation standards and methodology*. M.Ap.Comp.Sc, Computer Science Department, Concordia University, Montreal, Canada, 2002.
- [23] Liu Ying Chun. *Comparative Study of Java and C++: Design and Implementation of a Gas Station Network System*. M.Ap.Comp.Sc, Computer Science Department, Concordia University, Montreal, Canada, 2002.
- [24] Weilan Jiang. *Fast Adaptation of Legacy Code for Server Hosting*, M.Comp.Sc thesis, Computer Science Department, Concordia University, Montreal, Canada, 2001.

Graduate Thesis Supervision --- In Progress

- [1] Pouria Zahraei. MSc. Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada.

- [2] Solmaz Jaber. MSc. Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada.
- [3] Pouria Roostaei. MSc. Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada.
- [4] Vashisht Marhwal. MSc. Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada.
- [5] Rostislav Axamitnyy. Ph.D., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada.
- [6] Peyman Derashkavian. Ph.D., Department of Computer Science and Software Engineering, Concordia University, Montreal, Canada.
- [7] Nicolas Kamel. Ph.D., Department of Electrical and Computer Engineering, Concordia University, Montreal, Canada.

Undergraduate Supervision

- [1] Andre Lemyre. *Design and implementation of a compiler in the GIPSY environment*. Undergraduate research (funded by NSERC undergraduate research summer grant). Computer Science Department, Concordia University, Montreal, Canada, 2000.

Research Groups/Laboratories Membership

- [1] Software Engineering Research Center, Faculty of Engineering and Computer Science, Concordia University, 2015-
- [2] Computer Security Laboratory, Faculty of Engineering and Computer Science, Concordia University, 2015-

6 Administrative Duties

Department

- [1] Undergraduate Curriculum Director (2013--)
- [2] Computer Science Undergraduate Curriculum Committee (2012--)
- [3] Software Engineering Curriculum Committee (2000-2007, 2013--)
- [4] Departmental Tenure Committee (2004--)
- [5] Undergraduate Program Director, Computer Science (2012-2013)
- [6] Department Personnel Committee (2012-2014)
- [7] Computer Science Undergraduate Advisory Committee (2012-2013)
- [8] Part-Time Hiring Committee (2011-2012)
- [9] Coop Program Director (2007-2011)
- [10] Coop Advisory Committee (2007--2012)
- [11] Graduate Advisory Committee (Research) (2006-2008)

Faculty

- [1] Engineering and Computer Science Undergraduate Studies Committee (2012--)
- [2] Engineering and Computer Science Faculty Council (2012-2014, 2016-2018, 2020-2022, 2022--)
- [3] Committee for Design in Engineering (2005-2007)

University

- [1] Department Representative, Department of Computer Science and Software Engineering, CUFA Council (2006--)
- [2] John Molson School of Business Faculty Council (2014-2016, 2017-2018)

External

- [1] Concordia representative. Comités-conseils des programmes d'études préuniversitaires en Sciences de la Nature et Sciences Informatique et Mathématiques. Direction de l'enseignement collégial. Gouvernement du Québec. (2015--)
- [2] Lead presenter, ENCS faculty delegation. Colloque des universités québécoises et canadiennes d'expression française sur les normes d'agrément des programmes de génie. McGill University. (2019)
- [3] Member of ENCS faculty delegation. Colloque des universités québécoises et canadiennes d'expression française sur les normes d'agrément des programmes de génie. Université Laval. (2018)
- [4] Concordia representative. Comité-conseil pour l'expérimentation du programme d'études préuniversitaires Sciences informatiques et mathématiques (200.C0). Direction de l'enseignement collégial. Gouvernement du Québec. (2016-2018)
- [5] Lead presenter, ENCS faculty delegation. Colloque des universités québécoises et canadiennes d'expression française sur les normes d'agrément des programmes de génie. Concordia University. (2017)
- [6] Member of ENCS faculty delegation. Colloque des universités québécoises et canadiennes d'expression française sur les normes d'agrément des programmes de génie. Université de Trois-Rivières. (2016)
- [7] Member of ENCS faculty delegation. Canadian Engineering Education Association Conference. Hamilton. (2015)

Other Contributions

- [1] Evaluation Committee for MSc grants, FRQNT, 2020, 2021, 2022.
- [2] Member of the program and organization committee of SERA2022, Software Engineering Research, Management & Applications.
- [3] Reviewer. IEEE Transactions on Services Computing, 2021.

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- [4] Member of the program and organization committee of SERA2021, Software Engineering Research, Management & Applications.
 - [5] Reviewer. IEEE Transactions on Services Computing, 2020.
 - [6] Chair, Evaluation Committee for MSc, PhD and Post-doctoral grants, FRQNT, 2019.
 - [7] Member of the program and organization committee of SERA2018, Software Engineering Research, Management & Applications.
 - [8] Chair, Evaluation Committee for MSc, PhD and Post-doctoral grants, FRQNT, 2018.
 - [9] Member of the program committee of ENASE2018, Evaluation of Novel Approaches to Software Engineering.
 - [10] Chair, Evaluation Committee for Masters grants, FRQNT, 2017.
 - [11] Member of the program and organization committee of C³S²E-2017, C* Conference on Computer Science & Software Engineering.
 - [12] Member of the program and organization committee of SERA2017, Software Engineering Research, Management & Applications.
 - [13] Reviewer, ACM Computing Surveys, 2016.
 - [14] Member of the program and organization committee of SERA2016, Software Engineering Research, Management & Applications. Towson, Maryland, USA. 2016.
 - [15] Member of the program and organization committee of C³S²E-2016, C* Conference on Computer Science & Software Engineering. Porto, Portugal. 2016.
 - [16] Member of the program and organization committee of C³S²E-2015, C* Conference on Computer Science & Software Engineering. Yokohoma, Japan. 2015.
 - [17] Member of the program and organization committee of C³S²E-2014, C* Conference on Computer Science & Software Engineering. Montreal, Canada. 2014.
 - [18] Member of the program and organization committee of C³S²E-2013, C* Conference on Computer Science & Software Engineering. Porto, Portugal. 2013.
 - [19] Reviewer, 2013 Conference on Research in Adaptive and Convergent Systems (RACS 2013), October 1-4, 2013, Montreal, Canada.
 - [20] Reviewer, 12th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2013), June 16-20, 2013, Toki Messe, Niigata, Japan.
 - [21] Reviewer, NSERC grant applications. 2003, 2007, 2008, 2009, 2012.
 - [22] Reviewer, FQRNT Post-doctoral Grants Program. 2007, 2008, 2009.
 - [23] Reviewer and Committee Member, ACENet Research Fellowships, Atlantic Computational Excellence Network High Performance Computing Clusters. 2009, 2010.
 - [24] Reviewer and Committee Member, 13th ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2012), Kyoto, Japan. 2012.
 - [25] Member of the committee for the First International Workshop on Formal Methods for Self-Adaptive Systems (FMSAS-2012). Montreal, Canada. 2012.
 - [26] Member of the program and organization committee of C³S²E-2012, C* Conference on Computer Science & Software Engineering. Montreal, Canada. 2012.

- [27] Member of the program and organization committee of C³S²E-2011, C* Conference on Computer Science & Software Engineering. Montreal, Canada. 2011.
- [28] Member of the program and organization committee of C³S²E-2010, C* Conference on Computer Science & Software Engineering. Montreal, Canada. 2010.
- [29] Member of the program and organization committee of SERA2010, Software Engineering Research, Management & Applications. Montreal, Canada. 2010.
- [30] Chairperson, and member of the program and organization committee of SECASA2010, *3rd IEEE International Workshop on Software Engineering for Context Aware Systems and Applications*. Montreal, Canada. 2010.
- [31] Member of the program and organization committee of SECASA2009, *2nd IEEE International Workshop on Software Engineering for Context Aware Systems and Applications*. Seattle, USA. 2009.
- [32] Member of the program and organization committee of SECASA2008, *1st IEEE International Workshop on Software Engineering for Context Aware Systems and Applications*. Turku, Finland. 2008.
- [33] Reviewer for the Journal of Mathematics in Computer Science Special Issue on Intensional Programming & Semantics in honour of Bill Wadge on the occasion of his 60th cycle, 2007.
- [34] Book reviewer for McGraw-Hill for the proposed sixth edition of Roger Pressman's Software Engineering book. 2002.
- [35] Member of the program and organization committee of DCW2000, Workshop on Distributed Communities on the WEB, Laval University, 2000.