

# JENNIFER HORKOFF

## PERSONAL INFORMATION

### *University Address*

The University of Gothenburg and  
Chalmers University of Technology  
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Sweden

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*Publications* <https://dblp.uni-trier.de/pers/hd/h/Horkoff:Jennifer>

## EDUCATION

- 2012 Department of Computer Science, UNIVERSITY OF TORONTO  
*PhD* Thesis: Iterative, Interactive Analysis of Agent-Goal Models for Requirements Engineering  
Advisor: Eric Yu [eric@cs.utoronto.ca](mailto:eric@cs.utoronto.ca)
- 2006 Department of Computer Science, UNIVERSITY OF TORONTO  
*MSc* Thesis: Using i\* Models for Evaluation  
Advisor: Eric Yu [eric@cs.utoronto.ca](mailto:eric@cs.utoronto.ca)
- 2004 Department of Computer Science, UNIVERSITY OF TORONTO  
*HBSc* Honours Bachelor of Science with High Distinction  
Specialist: Software Engineering, Major: History.

## ACADEMIC POSITIONS

- 2016– Department of Computer Science and Engineering,  
CHALMERS UNIVERSITY OF TECHNOLOGY AND GOTHENBURG  
UNIVERSITY
- Associate Professor* 2020– Software Engineering Division: Course instruction, research and service.
- Assistant Professor* 2016-19 Software Engineering Division: Tenure-track position involving course instruction, research and service.
- 2014-16 Cass Business School, CITY UNIVERSITY LONDON
- Postdoctoral Fellow* Funded project exploring the synergies between creativity and goal modeling for Software Requirements Engineering.  
Supervisor: Neil MAIDEN [neil.maiden.1@city.ac.uk](mailto:neil.maiden.1@city.ac.uk)
- 2012-14 Dept of Inf Eng and Comp Sci, UNIVERSITY OF TRENTO
- Postdoctoral Fellow* Worked as part of the **Lucretius: Foundations for Software Evolution ERC Project** in the **Department of Information Engineering and Computer Science (DISI)**.  
Supervisor: John MYLOPOULOS [jm@disi.unitn.it](mailto:jm@disi.unitn.it)
- 2012 Department of Computer Science, UNIVERSITY OF TORONTO
- Postdoctoral Fellow* Worked in the **Business Intelligence Modeling Project**, part of the **NSERC Business Intelligence Network**.

Supervisor: John MYLOPOULOS [jm@cs.utoronto.ca](mailto:jm@cs.utoronto.ca)

#### AWARDS AND HONORS

- 2020-24 Vetenskapsrådet (VR) Non-Functional Requirements for Machine Learning: Facilitating Continuous Quality Awareness (iNFoRM), Role: Research Lead, 4 MSEK
- 2019 Co-author of the best full paper for PROFES 2019
- 2017- Chalmers SWC Project #27 Large-Scale Agile RE, Role: Research Collaborator
- 2017-19 Chalmers SWC Project #26 API Strategy, Role: Research Lead
- 2018 Chalmers Areas of Advance Seed Funding: 200 kSEK
- 2017 Chalmers Areas of Advance Seed Funding: 278 kSEK
- 2014-16 (Marie Curie) Intra-European Fellowships for career development, €221,606.40
- 2014-16 Natural Sciences and Engineering Research Council of Canada Postdoctoral Fellowship, \$80,000 CDN
- 2014 First author of the best paper of RCIS 2014
- 2012 Co-author of one of the best papers of RE 2012 (4/106 submissions)
- 2011 Ontario Graduate Scholarship in Science and Technology, \$15,000 CDN
- 2004-05, 06-07, 09-10 Ontario Graduate Scholarship, \$15,000 CDN each award
- 2004 Natural Sciences and Engineering Research Council of Canada Undergraduate Student Research Awards, \$4,500 CDN

#### SUPERVISION

##### *PhD:*

- Graduated 2018* E. Cardoso, University of Trento, Department of Information Engineering and Computer Science (DISI), Co-Supervisor with J. Mylopoulos
- Graduated 2016* F-L. Li, University of Trento, Department of Information Engineering and Computer Science (DISI), Co-Supervisor with J. Mylopoulos
- Graduated 2016* T. Li, University of Trento, Department of Information Engineering and Computer Science (DISI), Co-Supervisor with J. Mylopoulos

##### *Master's:*

- 2017-2019 (Co-)supervised six Master's theses, Chalmers University of Technology, Department of Computer Science and Engineering
- 2017-2019 (Co-)supervised 13 Bachelor theses, Chalmers University of Technology, Department of Computer Science and Engineering

#### ACADEMIC ACTIVITIES

##### **Organization & Chairing**

- 2021 Program Committee Co-Chair for the 39th International Conference on Conceptual Modeling (ER'21)
- 2019 Co-Track Chair for Track 5: Evaluation of modeling approaches for the 24th Working Conference on Exploring Modeling Methods for Systems Analysis and Development (EMMSAD'19)

- 2019 Tutorial Co-Chair for the 27th IEEE International Requirements Engineering Conference (RE'19)
- 2018 Program Committee Co-Chair for the 24th International Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ'18)
- 2017 Poster and Demo Co-Chair for the 25th IEEE International Requirements Engineering Conference (RE'17)
- 2017 Doctoral Symposium Co-Chair for the 23rd International Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ'17)
- 2016 Publication Chair for the 24th IEEE International Requirements Engineering Conference (RE'16)
- 2016 Programme Co-Chair for the 9th IFIP WG 8.1 Working Conference on The Practice of Enterprise Modeling (PoEM'16)
- 2016 Doctoral Symposium Co-Chair for the 22nd International Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ'16)
- 2014 Posters, Demos and Exhibits Co-Chair for RE'14
- 2014 Proceedings Chair for the 26th International Conference on Advanced Information Systems Engineering (CAiSE'14)
- 2014-15 Co-Organizer of First and Second International Workshop on Conceptual Modeling in Requirements and Business Analysis (MReBA), co-located with the International Conference on Conceptual Modeling (ER)
- 2015 Co-Organizer of the First International i\* Teaching Workshop (iStarT), co-located with CAiSE'15
- 2013-14 Co-Organizer of the 6th and 7th International i\* Workshop (iStar'13 and '14), co-located with CAiSE'13 and '14
- 2012-13 Co-Organizer of the 4th and 5th International Workshop on Requirements, Intentions, Goals in Conceptual Modeling (RIGiM'12 and RIGiM'13), co-located with ER'12 and '13
- 2013 Organizer of the iStar Tools Fair, part of the iStar'13, co-located with CAiSE'13
- 2011 Student Volunteer Co-Chair for 19th IEEE International Requirements Engineering Conference (RE'11)
- 2011 Student Volunteer Co-Chair for RE'11
- 2011 Co-Organizer of the iStar Tools Fair, part of iStar'11, co-located with RE'11
- 2011 Co-Organizer of the iStar Showcase, City University, London, 2011

### **Journal Reviewing**

- TSE* Transactions on Software Engineering, IEEE
- JSS* Journal of Systems and Software, Elsevier
- SoSym* International Journal on Software and Systems Modeling, Springer
- REJ* International Requirements Engineering Journal, Springer
- IST* Information and Software Technology, Elsevier
- TFS* Transactions on Fuzzy Systems, IEEE

### **Program Committees**

*Conference:*

- 2018– International Conference on Software Engineering (ICSE)
- 2018– International Conference on Conceptual Modeling (ER)
- 2013,15– IEEE International Requirements Engineering Conference (RE)
- 2013– Conference on Advanced Information Systems Engineering (CAiSE)
- 2014– International Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ)
- 2015 International Conference on Research Challenges in Information Science
- 2013– IFIP WG 8.1 working conference on the Practice of Enterprise Modeling (PoEM)

PUBLICATIONS

Bibliometrics as of April 2020 According to Google Scholar: Citations: 2447 h-index: 26

**Journal**

- IST 2019* J. Horkoff, N. A. Maiden, and D. Asboth. "Creative goal modeling for innovative requirements.;" Information and Software Technology 106 (2019): 85-100.
- TOCE 2018* JP Steghöfer, H. Burden, R. Hebig, G. Calikli, R. Feldt, I. Hammouda, J. Horkoff, E. Knauss, G. Liebel: Steghöfer, "Involving External Stakeholders in Project Courses." ACM Transactions on Computing Education (TOCE) 18.2 (2018): 8.
- SoSym 2018* T. Li, J. Horkoff, and J. Mylopoulos. "Holistic security requirements analysis for socio-technical systems." Software & Systems Modeling 17.4 (2018): 1253-1285.
- REJ 2016* J. Horkoff and E. Yu. "Interactive Goal Model Analysis for Early Requirements Engineering". Requirements Engineering 21.1 (2016): 29-61.
- IJISMD 2015* J. Horkoff, T. Li, F.-L. Li, M. Salnitri, E. Cardoso, P. Giorgini and J. Mylopoulos. "Using Goal Models Downstream: A Systematic Roadmap and Literature Review", International Journal of Information System Modeling and Design (IJISMD), Vol. 6 (Issue 2), pp. 1-42, April-June 2015.
- REJ 2013* R. Salay, M. Checkik, J. Horkoff and A. Di Sandro. "Managing requirements uncertainty with partial models". Requirements Engineering Journal (REJ), Vol. 18 (Issue 2), Best Papers of RE'12, pp. 107-128, 2013.
- SoSym 2012* J. Horkoff, D. Barone, L. Jiang, E. Yu, D. Amyot, A. Borgida and J. Mylopoulos. "Strategic Business Modeling: Representation and Reasoning". Software and Systems Modeling (SoSym), Special issue on Enterprise Modeling, Oct. 2012.
- REJ 2012* J. Horkoff and E. Yu. "Comparison and Evaluation of Goal-Oriented Satisfaction Analysis Techniques". Requirements Engineering Journal (REJ). pp. 1-24, Jan. 2012.

*IJIS 2010* D. Amyot, S. Ghanavati, J. Horkoff, G. Mussbacher, L. Peyton and E. Yu. "Evaluating Goal Models within the Goal-oriented Requirement Language". *International Journal of Intelligent Systems - Goal-driven Requirements Engineering*, Vol. 25 (Issue 8), pp. 841-877, Aug. 2010.

*IJISMD 2010* J. Horkoff and E. Yu. "Interactive Analysis of Agent-Goal Models in Enterprise Modeling". *International Journal of Information System Modeling and Design (IJISMD)*, Vol. 1 (Issue 4), pp. 1-23, 2010.

### Refereed Conference Proceedings

*PROFES 2019* J-P Steghöfer, E. Knauss, J. Horkoff, R. Wohlrab: "Challenges of Scaled Agile for Safety-Critical Systems". *IEEE International Conference on on Product-Focused Software Process Improvement 2019*: 350-366

*RE 2019* T. Li, K. Wang, J. Horkoff: "Towards Effective Assessment for Social Engineering Attacks". *IEEE International Requirements Engineering Conference 2019*: 392-397

*RE 2019* J. Horkoff: "Non-Functional Requirements for Machine Learning: Challenges and New Directions. *International Requirements Engineering Conference*: 386-391

*IEEE Soft 2019* A. Dekhtyar, J. Huffman Hayes, I. Hadar, E. Combs, A. Ferrari, S. Gregory, J. Horkoff, M. Levy, M. Nayebi, B. Paech, J. Payne, M. Primrose, P. Spoletini, S. Clarke, C. Brophy, D. Amyot, W. Maalej, G. Ruhe, J. Cleland-Huang, D. Zowghi: "Requirements Engineering (RE) for Social Good: RE Cares [Requirements]." *IEEE Software* 36(1): 86-94 (2019)

*EDOC 2018* E. Cardoso, J. Horkoff, R. Sebastiani, J. Mylopoulos: *Planning with Strategic Goals*. 22nd IEEE International Enterprise Computing Conference (EDOC) 2018: 44-50

*ER 2018* J. Horkoff, J. Lindman, I. Hammouda, E. Knauss: "Experiences Applying e3 Value Modeling in a Cross-Company Study". *Conceptual Modeling (ER)*. *Lecture Notes in Computer Science*, vol 11157. Springer. 2018

*NIER 2018* R. Scandariato, J. Horkoff, R. Feldt: "Generative secure design, defined". 2018 IEEE/ACM 40th International Conference on Software Engineering: New Ideas and Emerging Technologies Results (ICSE-NIER). IEEE, 2018.

*ICSOB 2018* J. Horkoff, J. Lindman, I. Hammouda, E. Knauss, J. Debbiche, M. Freiholtz, P. Liao, S. Mensah, A. Strömberg: "Modeling Support for Strategic API Planning and Analysis". In *International Conference of Software Business (ICSOB)* (pp. 10-26). Springer/ 2-19

*RE 2018* J. Horkoff, J. Ersare, J. Kahler, T. D. Jorundsson, I. Hammouda: "Efficiency and Effectiveness of Requirements Elicitation Techniques for Children". In 2018 IEEE 26th International Requirements Engineering Conference (RE) (pp. 194-204). IEEE. 2018

- PoEM 2017* J. Horkoff, Imed Hammouda, Juho Lindman, Jamel Debbiche, Martina Freiholtz, Patrik Liao, Stephen Mensah, Aksel Strömberg: "Goals, Workflow, and Value: Case Study Experiences with Three Modeling Frameworks". In IFIP Working Conference on The Practice of Enterprise Modeling (pp. 96-111).
- CAiSE 2016* F.-L. Li, J. Horkoff, L. Liu, A. Borgida, G. Guizzardi, J. Mylopoulos. "Engineering Requirements with Desiree: An Empirical Evaluation". Proc. 28th International Conference on Advanced Information Systems Engineering (CAISE 2016), 2014.
- PoEM 2015* T. Li, J. Horkoff, E. Paja, K. Beckers and J. Mylopoulos. "Analyzing Attack Strategies through Anti-Goal Refinement". Proc. Practise of Enterprise Modeling, 3rd IFIP WG8.1 (PoEM 2015), 2015.
- REFSQ 2015* T. Li, J. Horkoff and J. Mylopoulos. "Analyzing and Enforcing Security Mechanisms on Requirements Specifications". Proc. 21st Intl. Working Conference on Requirement Engineering: Foundation for Software Quality (REFSQ 2015), 2015.
- REFSQ 2015* F.-L. Li, J. Horkoff, A. Borgida, G. Guizzardi, L. Liu and J. Mylopoulos. From Stakeholder Requirements to Formal Specifications Through Refinement. Proc. 21st Intl. Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ 2015), 2015.
- ER 2014* J. Horkoff, F. B. Aydemir, F. Li, T. Li and J. Mylopoulos. "Evaluating the Expressiveness and Effectiveness of a Modeling Language: A Requirements Modeling Language Example". Proc. 33rd International Conference on Conceptual Modeling (ER 2014), 2014.
- RE 2014* J. Horkoff, R. Salay, M. Chechik and A. Di Sandro. "Supporting Early Decision-Making in the Presence of Uncertainty". Proc. 22nd IEEE International Requirements Engineering Conference (RE 2014), 2014. 27% (31/115) Acceptance Rate.
- RE 2014* F. Li, J. Horkoff, A. Borgida, R. S. S. Guizzardi, G. Guizzardi, J. Mylopoulos and L. Liu. "Non-Functional Requirements as Qualities: An Ontological Perspective". Proc. 22nd IEEE International Requirements Engineering Conference (RE 2014), 2014. 27% (31/115) Acceptance Rate.
- FOIS 2014* R. Guizzardi, F. Li, A. Borgida, G. Guizzardi, J. Horkoff and J. Mylopoulos. "An Ontological Interpretation of Non-Functional Requirements". Proc. 8th International Conference on Formal Ontology in Information Systems (FOIS 2014), 2014.
- CAiSE 2014* T. Li and J. Horkoff. "Dealing with Security Requirements for Socio-Technical Systems: A Holistic Approach". Proc. 26th International Conference on Advanced Information Systems Engineering (CAISE 2014), 2014. 18% (41/226) Acceptance Rate.
- RCIS 2014* J. Horkoff, T. Li, F. Li, J. Pimentel, M. Salnitri, E. Cardoso, P. Giorgini and J. Mylopoulos. "Taking Goal Models Downstream: A Systematic Roadmap". Proc. 8th IEEE International Conference on

Research Challenges in Information Science (RCIS 2014), 2014. Best paper award.

- RCIS 2013* F. Dalpiaz, A. Borgida, J. Horkoff and J. Mylopoulos. "Runtime Goal Models". Proc. 7th IEEE International Conference on Research Challenges in Information Science (RCIS 2013), 2013. Invited paper.
- ODBASE 2012* J. Horkoff, A. Borgida, J. Mylopoulos, D. Barone, L. Jiang, E. Yu and D. Amyot. "Making Data Meaningful: The Business Intelligence Model and its Formal Semantics in Description Logics". Proc. 11th International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE 2012), 2012. 29% (15/52) Acceptance Rate.
- RE 2012* R. Salay, M. Chechik and J. Horkoff. "Managing Requirements Uncertainty with Partial Models". Proc. 20th IEEE International Requirements Engineering Conference (RE 2012), 2012. 24% (26/106) Acceptance Rate, selected as one of the 4 best papers.
- SAC'11 RE Track* J. Horkoff and E. Yu. "Analyzing Goal Models - Different Approaches and How to Choose Among Them". Proc. Requirements Engineering Track - Fourth Edition, part of the 26th ACM Symposium on Applied Computing (SAC 2011), 2011. 30% (237/790) Acceptance Rate.
- PoEM 2010* J. Horkoff, E. Yu and A. Ghose. "Interactive Goal Model Analysis Applied - Systematic Procedures versus Ad hoc Analysis". Proc. Practise of Enterprise Modeling, 3rd IFIP WG8.1 (PoEM 2010), 2010. 39% (17/44) Acceptance Rate.
- ER 2010* J. Horkoff and E. Yu. "Finding Solutions in Goal Models: An Interactive Backward Reasoning Approach". Proc. 29th International Conference on Conceptual Modeling (ER 2010), 2010. 20% (30/147) Acceptance Rate.
- PoEM 2009* J. Horkoff and E. Yu. "Evaluating Goal Achievement in Enterprise Modeling - An Interactive Procedure and Experiences". Proc. Practise of Enterprise Modeling (PoEM 2009), 2009, pp. 145-160. 41% (17/41) Acceptance Rate.
- ICSE NIER 2009* J. Cabot, S. Easterbrook, J. Horkoff, J. Mazn, L. Lessard and S. Liaskos. "Integrating Sustainability in Decision-Making Processes: A Modelling Strategy". Proc. ICSE 2009 New Ideas and Emerging Results (NIER 2009), 2009.
- DESRIST 2009* Y. An, P. Gerrity, P. W. Dalrymple, J. Horkoff and M. Rogers (iSchool) and E. Yu. "Collaborative Social Modeling for Designing a Patient Wellness Tracking System in a Nurse-Managed Health Care Center". Proc. 4th International Conference on Design Science Research in Information Systems and Technology (DESRIST 2009), 2009.
- REFSQ 2008* M. Strohmaier, J. Horkoff, E. Yu, J. Aranda and S. Easterbrook. "Can Patterns improve i\* Modeling? Two Exploratory Studies". Proc. International Working Conference on Requirements

Engineering: Foundations for Software Quality (REFSQ 2008), 2008. 34% (17/50) Acceptance Rate.

- HICSS-40 2007* M. Strohmaier, E. Yu, J. Horkoff, J. Aranda and S. Easterbrook. "Analyzing Knowledge Transfer Effectiveness - An Agent-Oriented Approach". Proc. 40th Hawaii International Conference on Systems Science (HICSS-40 2007), 2007.
- PST 2006* J. Horkoff, E. Yu and L. Liu. "Analyzing Trust in Technology Strategies". Proc. International Conference on Privacy, Security and Trust (PST 2006), 2006 .
- RE 2005* S. Easterbrook, E. Yu, J. Aranda, Y. Fan, J. Horkoff, M. Leica and R. A. Qadir. "Do Viewpoints Lead to Better Conceptual Models? An Exploratory Case Study". Proc. 13th IEEE International Requirements Engineering Conference (RE 2005), 2005. 20% (35/175) Acceptance Rate.

### Book Chapter

- Business Modeling 2013* E. Yu, J. Horkoff, D. Amyot, G. Richards and J. Mylopoulos. "Business Modeling for Business Intelligence Synthesis Lectures on Data Management" in Perspectives on Business Intelligence, No. 1, Vol. 5. R. T. Ng, P. C. Arocena, D. Barbosa, et al., Ed. 2013, pp. 19-32.

### Refereed Workshop, Poster & Forum Proceedings

- SEMotion@ICSE 2018* G. Calikli, M. Al-Eryani, E. Baldebo, J. Horkoff, A. Ask: Effects of automated competency evaluation on software engineers' emotions and motivation: a case study. SEmotion@ICSE 2018: 44-50
- EARS@RE 2018* J. Horkoff: Experiences with Teaching EARS to First-Year Software Engineering Students. EARS@RE 2018: 16-17
- REET@RE 2018* J. Horkoff: The Influence of Agile Methods on Requirements Engineering Courses. REET@RE 2018: 11-19
- Posters@RE 2018* E.Knauss, G. Liebel, J. Horkoff, R. Wohlrab, R. Kasauli, F. Lange, P. Gildert: T-Req: Tool Support for Managing Requirements in Large-Scale Agile System Development. RE 2018: 502-503
- SCME 2017* V. Lantz, J. Horkoff, S. Alibrahim: Using Goal Models to Visualize and Prioritize Requirements for Learning Management Systems. SCME-iStarT@ER 2017: 58-67
- REW 2015* E. Knauss, G.Liebel, K. Schneider, J. Horkoff, R. Kasauli: Quality Requirements in Agile as a Knowledge Management Problem: More than Just-in-Time. RE Workshops 2017: 427-430
- REET 2017* F. de Oliveira Neto, J. Horkoff, E. Knauss, R. Kasauli, G.Liebel: Challenges of Aligning Requirements Engineering and System Testing in Large-Scale Agile: A Multiple Case Study. RE Workshops 2017: 315-322
- iStar 2016* J. Horkoff, N. A. M. Maiden: Creative Leaf: A Creative iStar

Modeling Tool. *iStar 2016*: 25-30

- iStar 2016* T. Li, A. M. Grubb, J. Horkoff: Understanding Challenges and Tradeoffs in *iStar* Tool Development. *iStar 2016*: 49-54
- iStar 2016* L. Lopez, F. Aydemir, F. Dalpiaz, J. Horkoff: An Empirical Evaluation Roadmap for *iStar 2.0*. *iStar 2016*: 55-60
- SCME 2015* E. Paja, J. Horkoff and J. Mylopoulos. "The Importance of Teaching Systematic Analysis for Conceptual Models: An Experience Report". Proc. 3rd Symposium on Conceptual Modeling Education (*SCME 2015*), 2015: 347-357.
- Posters@RE 2015* T. Li, E. Paja, J. Mylopoulos, J. Horkoff and K. Beckers. "Holistic Security Requirements Analysis: An Attacker's Perspective". *RE'15 Posters, Tools and Demos Session*, 2015
- iStarT 2015* J. Horkoff: "Observational Studies of new *i\** Users: Challenges and Recommendations". *iStarT@CAiSE 2015*: 13-18
- iStarT 2015* E. S. K. Yu, L. Lessard, Z. Babar, S. Nalchigar and J. Horkoff: "Teaching *i\** Alongside a Contrasting Modeling Framework". *iStarT@CAiSE 2015*: 25-30
- iStarT 2015* Z. Babar, S. Nalchigar, L. Lessard, J. Horkoff and E. S. K. Yu: "Instructional Experiences with Modeling and Analysis using the *i\** Framework". *iStarT@CAiSE 2015*: 31-36
- iStarT 2015* E. Paja, J. Horkoff and J. Mylopoulos: "The Importance of Teaching Goal-Oriented Analysis Techniques: an Experience Report". *iStarT@CAiSE 2015*: 37-42
- iStarT 2015* A. Bennaceur, J. Lockerbie and J. Horkoff: "On the Learnability of *i\**: Experiences from a New Teacher". *iStarT@CAiSE 2015*: 43-48
- C&CPoster 2015* J. Horkoff, N. A. M. Maiden and J. Lockerbie: "Creativity and Goal Modeling for Software Requirements Engineering". *Creativity & Cognition 2015*: 165-168
- iStar 2015* J. Horkoff and N. A. M. Maiden: "Supporting Creative RE with *i\**". *iStar 2015*: 37-42
- iStar 2015* T. Li, J. Horkoff, K. Beckers, E. Paja and J. Mylopoulos: "A Holistic Approach to Attack Modeling and Analysis". *iStar 2015*: 49-54
- CreaRE 2015* J. Horkoff and N. A. M. Maiden: "Creativity and Conceptual Modeling for Requirements Engineering". *REFSQ Workshops 2015*: 62-68
- CAiSE Forum 2014* T. Li, J. Horkoff and J. Mylopoulos: "A Prototype Tool for Modeling and Analyzing Security Requirements from A Holistic Viewpoint". *CAiSE (Forum/Doctoral Consortium) 2014*: 185-192
- AIRE 2014* A. Borgida, J. Horkoff and J. Mylopoulos: "Applying knowledge representation and reasoning to (simple) goal models". *AIRE 2014*: 53-59

- CAiSE Forum 2014* T. Li and J. Horkoff. "A Prototype Tool for Modeling and Analyzing Security Requirements from A Holistic Viewpoint". Proc. 26th International Conference on Advanced Information Systems Engineering Forum (CAISE 2014 Forum), 2014.
- iStar 2013* S. Ingolfo, J. Horkoff and J. Mylopoulos. "Uncertainty in Goal and Law Modeling and Analysis". 6th International iStar Workshop, CEUR Workshop Proceedings, vol. 978, 2013, pp. 31-36.
- iStar 2013* F. Li, J. Horkoff, J. Mylopoulos, L. Liu and A. Borgida. "Non-Functional Requirements Revisited". 6th International iStar Workshop, CEUR Workshop Proceedings, vol. 978, 2013, pp. 109-114.
- iStar Tools 2013* F. Dalpiaz, D. Barone, J. Horkoff, L. Jiang and J. Mylopoulos. "BIM-Tool: Modeling and Reasoning Support for Strategic Business Models". 6th International iStar Workshop, CEUR Workshop Proceedings, vol. 978, 2013, pp. 134-136.
- iStar Tools 2013* D. Amyot, R. Rashidi-Tabrizi, G. Mussbacher, J. Kealey, E. Tremblay and J. Horkoff. "Improved GRL Modeling and Analysis with jUCMNav 5". 6th International iStar Workshop, CEUR Workshop Proceedings, vol. 978, 2013, pp. 137-139.
- MiSE 2013* A. Borgida, F. Dalpiaz, J. Horkoff and J. Mylopoulos. "Requirements Models for Design- and Runtime: A Position Paper". ICSE 5th International Workshop on Modeling in Software Engineering (MiSE), 2013.
- CMA 2012* G. Mussbacher, O. Alam, M. Alhaj, S. Ali, N. Amálio, B. Barn, R. Bræk, T. Clark, B. Combemale, L. M. Cysneiros, U. Fatima, R. France, G. Georg, J. Horkoff, J. Kienzle, J. C. Leite, T. C. Lethbridge, M. Luckey, A. Moreira, F. Mutz, A. Padua, A. Oliveira, D. C. Petriu, M. Schöttle, L. Troup and V. M. B. Werneck. "Assessing composition in modeling approaches". Proc. CMA 2012 Workshop (CMA 2012), 2012, pp. 1-26.
- DL 2012* A. Borgida, J. Horkoff, J. Mylopoulos and R. Rosati. "Experiences in Mapping the Business Intelligence Model to Description Logics, and the Case for Parametric Concepts". Description Logics, 2012.
- iStar 2011* J. Horkoff and E. Yu. "Detecting Judgment Inconsistencies to Encourage Model Iteration in Interactive i\* Analysis". 5th International iStar Workshop, CEUR Workshop Proceedings, vol. 766, 2011, pp. 20-25.
- iStar Tools 2011* J. Horkoff, Y. Yu and E. Yu. OpenOME: An Open-source Goal and Agent-Oriented Model Drawing and Analysis Tool. iStar 2011 Tool Fair, CEUR Workshop Proceedings, vol. 766, 2011, pp. 154-156.
- REV 2010* J. Horkoff and E. Yu. "Visualizations to Support Interactive Goal Model Analysis". 5th International Workshop on Requirements Engineering Visualization (REV), 2010, pp. 1-10.
- iStar 2010* J. Horkoff and E. Yu. "A Framework for Iterative, Interactive

Analysis of Agent-Goal Models in Early Requirements Engineering". 4th International iStar Workshop, CEUR Workshop Proceedings, vol. 586, 2010, pp. 2-56.

- CAiSE Forum*  
2009 J. Horkoff and E. Yu. "A Qualitative, Interactive Evaluation Procedure for Goal- and Agent-Oriented Models". Proc. 21st International Conference on Advanced Information Systems (CAiSE 2009 Forum), 2009.
- RIGiM 2009* D. Amyot, J. Horkoff, D. Gross and G. Mussbacher. "A Lightweight GRL Profile for i\* Modeling". 3rd International Workshop on Requirements, Intentions, and Goals in Conceptual Modeling (RIGiM 2009), ER Workshops, 2009, pp. 254-264.
- RIGiM 2008* J. Horkoff, G. Elahi, S. Abdulhadi and E. Yu. "Reflective Analysis of the Syntax and Semantics of the i\* Framework". 2nd International Workshop on Requirements, Intentions, and Goals in Conceptual Modeling (RIGiM 2008), ER Workshops, 2008, pp. 249-260.
- iStar 2008* J. Horkoff and E. Yu. "Qualitative, Interactive, Backward Analysis of i\* Models". 3rd International iStar Workshop, CEUR Workshop Proceedings, vol. 322, 2008, pp. 43-46.
- iStar 2008* G. Grau, J. Horkoff, D. Schmitz, S. Abdulhadi and E. S. K. Yu. "Fostering Investigation, Collaboration, and Evaluation: the i\* Wiki Experience". 3rd International iStar Workshop, CEUR Workshop Proceedings, vol. 322, 2008, pp. 33-36.
- MiSE 2007* J. Aranda, N. Ernst, J. Horkoff and S. Easterbrook. "A Framework for Empirical Evaluation of Model Comprehensibility". Modeling in Software Engineering (MiSE) Workshop with ICSE 2007, 2007.

### Technical Reports

- SCME 2015* E. Knauss, G. Liebel, J. Horkoff, R. Wohlrab, R. Kasauli, F. Lange, P. Gildert: T-Reqs: Tool Support for Managing Requirements in Large-Scale Agile System Development. CoRR abs/1805.02769 (2018)
- ACM SIGSOFT*  
2015 J. Horkoff, J. Lockerbie, X. Franch, E. S. K. Yu, J. Mylopoulos. "Report on the First International i\* Teaching Workshop (iStarT)", ACM SIGSOFT Software Engineering Notes, 40(6), pp. 24-27, 2015)
- arXiv Tech Report*  
2016 Li, F-L., Borgida, A., Guizzardi, G., Horkoff, J., Liu, L., Mylopoulos, J., Desiree: a Refinement Calculus for Requirements Problems. CoRR abs/1605.02263. <http://arxiv.org/abs/1605.02263>
- arXiv Tech Report*  
2016 Dalpiaz, F., Franch, X., Horkoff, J., iStar 2.0 Language Guide. CoRR abs/1605.07767. <http://arxiv.org/abs/1605.07767>
- DCS Tech Report*  
2007 Horkoff, J. Using i\* Modeling for the Analysis of Strategy Documents: Course Project for CS2507 Conceptual Modeling, Spring 2007. DCS Technical Report, CSRG-613. <ftp://ftp.cs.toronto.edu/csr-technical-reports/613/>

- DCS Tech Report  
2007 Horkoff, J., Yu, E. Modeling and Analyzing Technology Strategies.  
DCS Technical Report, CSRG-614.  
<ftp://ftp.cs.toronto.edu/csrg-technical-reports/614/>
- DCS Tech Report  
2005 Horkoff, J. Applying the i\* Framework, Scenarios, and  
Prioritization Methods to a Requirements Analysis for Kids Help  
Phone: Course Project for CS2106 Requirements Engineering, Fall  
2005. DCS Technical Report, CSRG-612.  
<ftp://ftp.cs.toronto.edu/csrg-technical-reports/612/>

#### INVITED TALKS

- 2019 "Evaluating and Developing Requirements Approaches and Tools  
in the Gaming Industry: Stranger in a Strange Land", SiREN  
(Swedish RE) Signal Meeting 2017, May
- 2017 "Modeling, Reasoning, and Creativity for Early Requirements  
Engineering", SiREN (Swedish RE) Signal Meeting 2017, May
- 2016 "Establishing shared understanding across teams", SAST Vast Q4 -  
test och krav, November
- 2016 "Requirements Engineering at City University London", Brighton  
Requirements Engineering Workshop, University of Brighton,  
January, United Kingdom
- 2015 "Creativity and Goal Modeling for Requirements Engineering",  
REFSQ'16 Requirements Engineering Workshop, Chalmers  
University of Technology, Sweden, December
- 2015 "Supporting Creative RE with i\*", Software Engineering  
Department, University of Toronto, August
- 2015 "Creativity and Conceptual Modeling for Requirements  
Engineering", DISI, University of Trento, May & November
- 2015 "Goal-Oriented Requirements Engineering: Introduction and  
Overview", RE'15 PC Meeting mini-workshop, Pisa, Italy, May
- 2014 "Supporting Early Decision-Making in the Presence of Uncertainty",  
Best of RESG (Requirements Engineering Specialist Group)  
Research 2014, December
- 2014 "Goal-Oriented Creativity and Creative Goal Modeling for  
Requirements Engineering", DISI, University of Trento, November
- 2014 "Reasoning with Goal Models: from Early Requirements to System  
Development and Operation", Software Engineering Department,  
Rochester Institute of Technology, February
- 2014 "Reasoning with Goal Models: from Early Requirements to System  
Development and Operation", Software Engineering Department,  
University of Toronto, February
- 2014 "Reasoning with Goal Models: from Early Requirements to System

Development and Operation”, David R. Cheriton School of Computer Science, University of Waterloo, February

2013 “Reasoning with Goal Models: from Early Requirements to System Development and Operation”, Interdisciplinary Centre for Security, Reliability and Trust, University of Luxembourg, November

2013 “Goal Oriented Requirements Engineering: Basics, Past, Current, and Future Work”, Departamento de Informática, Universidad Técnica Federico Santa Maria, May

2012 “The Business Intelligence Model: Representation, Reasoning, and Application”, Department of Computer Science, University of Toronto, July

2011 “Iterative, Interactive Analysis of Agent-Goal Models for Early Requirements Engineering”, SE @ York Seminar, York University, Toronto, Canada, November

2011 “Strategic Models for Business Intelligence”, Conference of the Center for Advanced Studies on Collaborative Research, CASCON 2011, November

2008 “Strategic Business Modeling with i\*”, Workshop on Requirements-Driven Business Process Modelling and Performance Management, CASCON 2008, October

2004 “Trusted Computing, an i\* Case Study”, Requirements Engineering Security Meeting, Imperial College, London, June

#### TOOL DEVELOPMENT

2014– Creative Leaf, an open-source, online tool to support the application of creativity techniques to goal modeling for Requirements Engineering.  
Site: <http://creativeleaf.portal.chalmers.se/> 1,200+ Unique Users

2005–11 OpenOME, an open-source Requirements Engineering tool facilitating goal modeling and interactive analysis.  
Developer Site: <https://se.cs.toronto.edu/trac/ome/wiki>.  
Sourceforge: <http://sourceforge.net/projects/openome/> 10,000+ downloads

#### TEACHING EXPERIENCE

##### **Course Instructor**

##### *Graduate:*

Organizational Information Systems (Spring 2014) (Co-lecturer),  
University of Trento  
Enrollment: 17 Students

##### *Undergraduate:*

Research Methods and Technical Writing, DIT590/DIT831 (Spring 2019-20), Chalmers and the University of Gothenburg  
Enrollment: 60 Students

Requirements Engineering and User Experience, DIT045/DAT355 (Fall 2017-20), c  
Enrollment: 100 Students

Engineering Large Software Systems, CSC302 (Spring 2011),  
University of Toronto  
Enrollment: 62 Students

### **Teaching Assistant**

*Graduate:*

Analyzing Information Systems, FIS1341 (Fall 2006, Fall 2010)

*Undergraduate:*

Department of Computer Science Help Center (Summer 2008,  
Summer 2010, Summer 2011)

Engineering Large Software Systems, CSC302 (Winter 2009, Spring 2010)

Introduction to Software Engineering, CSC301 (Summer 2008, Fall 2008, Fall 2009)

Software Design, CSC207 (Summer 2009)

Computers and Society, CSC300 (Winter 2009)

The Why and How of Computing, CSC104 (Summer 2007)

Writing for Scientists, WRT307 (Winter 2006, Winter 2007)

Requirements Engineering, CSC340 (Fall 2004, Winter 2005, Fall 2005, Summer 2006)

*Other:*

Lead Writing TA for Department of Computer Science (2008-10)

Supervising Project Course Team, CSC49X (Fall 2005)

Course Development (Summer 2005)

### **Pedagogical Training**

Completion of Course: HPE201 Supervision in Postgraduate Programs (December 2018)

Completion of Course: HPE103 Teaching and learning in Higher Education 3 (June 2018)

Completion of Course: HPE102 Teaching and learning in Higher Education 2 (May 2017)

Completion of Course: HPE101 Teaching and learning in Higher Education 1 (May 2017)

Completion of Course: THE Teaching in Higher Education (April 2009)

Lead Writing Teaching Assistant Training (Fall 2008, Fall 2009)

U of T Department of CS Teaching Assistant Training (Fall 2005)

### **REFERENCES**

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