Jocelyn Simmonds

University of Toronto
Department of Computer Science
10 King's College Road
Toronto, ON, M5S 3G4
CANADA

(416) 946 5237
jsimmond@cs.toronto.edu
http://www.cs.toronto.edu/~jsimmond

Education

University of Toronto   Toronto, ON
Ph.D. student – Software Engineering, Automated Verification, Testing
GPA: 3.7 / 4
Expected graduation date: Aug. 2010
Supervisor: Prof. Marsha Chechik

Universidad de Chile   Apr '05
Ingeniero Civil en Computación   Chile
GPA: 6.7 / 7
Thesis: *A Consistency Maintenance Framework for UML 2.0.* (in Spanish)
Supervisor: Prof. M. Cecilia Bastarrica

Vrije Universiteit Brussel / Ecole des Mines de Nantes   Sept '03
M.S., Computer Science   Belgium / France
GPA: 17.52 / 20
Thesis: *Consistency Maintenance of UML Models using Description Logics.*
Supervisor: Prof. Tom Mens

Universidad de Chile   Mar '03
B.S., Computer Science   Chile

Selected Publications

Refereed Journal Papers

1. *Exploiting resolution proofs to speed up LTL vacuity detection for BMC*, Jocelyn Simmonds, Jessica Davies, Arie Gurfinkel and Marsha Chechik. To appear in the International Journal on Software Tools for Technology Transfer (STTT).

2. *Runtime Monitoring of Web Service Conversations*, Jocelyn Simmonds, Yuan Gan, Marsha Chechik, Shiva Nejati, Bill O'Farrell, Elena Litani and Julie Waterhouse. In IEEE Transactions on Services Computing '09 (IEEE TSC '09).

3. *A Tool based on DL for UML Model Consistency Checking*, Jocelyn Simmonds, M. Cecilia Bastarrica, Nancy Hitschfeld-Kahler and Sebastian Rivas. In International Journal of Software Engineering and Knowledge Engineering '08 (IJSEKE '08).

Refereed Conference, Workshop and Tool Papers

1. *Property Patterns for Runtime Monitoring of Web Service Conversations*, Jocelyn Simmonds, Marsha Chechik, Shiva Nejati, Elena Litani and Bill O'Farrell. In Proceedings of Runtime Verification '08 (RV '08). *Workshop paper.*

2. *Exploiting Resolution Proofs to Speed up LTL Vacuity Detection for BMC*, Jocelyn Simmonds, Jessica Davies, Arie Gurfinkel and Marsha Chechik. In Proceedings of Formal Methods in Computer Aided Design '07 (FMCAD '07). *Conference paper.*

3. *VaqTree: Efficient Vacuity Detection for Bounded Model Checking*, Jocelyn Simmonds, Jessica Davies and Arie Gurfinkel. In Tools and Posters track of Formal Methods '06 (FM '06). *Tool paper*

4. *A tool for automatic UML model consistency checking*, Jocelyn Simmonds, M. Cecilia Bastarrica. In Proceedings of Automated Software Engineering '05 (ASE '05). *Tool paper.*

5. *Maintaining Consistency between UML Models Using Description Logic*, Jocelyn Simmonds, Ragnhild Van Der Straeten, Viviane Jonckers, Tom Mens. In L'OBJET: Software, Databases, Networks '04 (L'OBJET '04). *Conference paper.*

6. *Using Description Logic to Maintain Consistency between UML Models*, Ragnhild Van Der Straeten, Tom Mens, Jocelyn Simmonds, Viviane Jonckers. In Proceedings of Unified Modeling Language '03 (UML '03). *Conference paper.*

Book Chapters

1. *A Framework for Managing Consistency of Evolving UML Models*, Tom Mens, Ragnhild Van Der Straeten and Jocelyn Simmonds. In "Software Evolution With UML and XML", by Hongji Yang, Idea Group Publishing.

In preparation

1. *Guided Recovery for Web Service Applications*, Jocelyn Simmonds, Shoham Ben-David and Marsha Chechik. Submitted to Foundations of Software Engineering '10 (FSE '10).

2. *Monitoring and Recovery of Web Service Applications*, Jocelyn Simmonds, Shoham Ben-David and Marsha Chechik. Book chapter.

Projects

Details available at `http://www.cs.toronto.edu/~jsimmond/projects.html`

Monitoring and Recovery of Web Service Applications	University of Toronto/
Main student involved	IBM Toronto Lab
	Ongoing project, started 2006
VaqTree – SAT-based vacuity detection	University of Toronto
Main student involved	Ongoing project, started 2006
XChek – Multi-valued Model Checker	University of Toronto
Testing and documentation	Ongoing project, started 2005
MCC – Model Consistency Checker	University of Chile
Started project. It is now continued by other students	Ongoing project, started 2003

Grants and Awards

Gordon Cressy Student Leadership Awards	Apr '10
In appreciation of outstanding voluntary service while a student at the University of Toronto	
MITACS - ACCELERATE Ontario Internship	May – Sept '09
Summer internship at the IBM Toronto Lab Project: "Guided Recovery for Web Service Applications"	

MITACS - ACCELERATE Ontario Internship   May – Sept '08
Summer internship at the IBM Toronto Lab
Project: "Runtime Monitoring of Web Service Conversations"

2008 Google Canada Anita Borg Memorial Scholarship   May '08
Finalist, received $1.000 scholarship

2007 Goldman Sachs Technology ELLA Scholarship   Oct '07
ELLA - Educating Latina Leaders Ahora
Hotel, registration, travel for the Grace Hopper Celebration

IBM Centers for Advanced Studies Fellowship   May – Sept '07
Summer internship at the IBM Toronto Lab
Project: "Runtime Monitoring of Web Service Conversations"

Work History

Sessional Instructor   Jan – Apr '10
"Software Testing and Verification"   University of Toronto

> As a teaching assistant for "Software Testing and Verification", I collaborated with Prof.
> Chechik, helping with the design of the assignments, midterms and final exams. I was in
> charge of the technical aspects of the course, giving tutorials on the various tools covered
> in the course (JML, jmlc, ESC/Java, JUnit, Daikon, Blast). Given my experience with the
> course material, I taught it this semester.

Teaching Assistant   Jan – Aug '09
"Help Centre" - One-on-one assistance for CS ungraduates   University of Toronto

Teaching Assistant   Jan – Apr, '06 – '08
"Software Testing and Verification"   University of Toronto

Teaching Assistant   Sept – Dec, '05 – '09
"Software Engineering"   University of Toronto

Teaching Assistant   Aug '00 - Dec '01, Aug '04 - Dec '04
"Computación" (initial Comp. Sci. undergrad course)   Universidad de Chile

Teaching Assistant   May '01 - Jul '02
"Desarrollo de Software de Aplicación" (SW development)   Universidad de Chile

Design and Implementation of J2EE projects   Dec '04 - Jul '05
Schema J2EE Architects   Santiago, Chile

Design and Implementation of bioinformatic software   Oct '03 - Jun '04
Laboratorio de Bioinformática y Matemática del Genoma   Santiago, Chile

Professional Activities and Service to the Community

Birds of a Feather session at Grace Hopper Celebration   Oct '09
Topic: "Cross-Cultural Communication Challenges Faced by Women in Computing"   Tucson, USA

Computer Science Graduate Student Benevolence Society   May '09 – present
Represent students on executive, University of Toronto   Toronto, ON

Panel at the CAHSI Conference   Feb '09
CAHSI: Computing Alliance for Hispanic-Serving Institutions.   Mountain View, USA
Topic: "Build Bridges and Wire Up Your Career", at Google Inc.

Gr8 Designs for Gr8 Girls Program   May '08, May '09
Developed and presented a Scratch tutorial.   Toronto, ON

Panel at Grace Hopper Celebration   Oct '07
Topic: "Pursuing Graduate School and the Computer Science Research Career"   San Diego, USA

Grace Hopper Celebration - Head Delegate   '07 – '08
Promote and coordinate local student participation in the Grace Hopper Celebration.
This is the largest technical conference for women in computing.

Sun Campus Ambassador   Dec '07 – Aug '08
Promote use of Java technology at the University of Toronto   Toronto, ON

Graduate Student Mentor   Sept '07 – present
Department of Computer Science, University of Toronto   Toronto, ON

Reviewer
Sub-refereed papers for top-level Software Engineering conferences, like TACAS, ASE and ICSE.

Student Volunteer   Oct 4-7 '06
Grace Hopper Celebration   San Diego, USA

Reading Group Coordinator   May '06 – Aug '08
Formal Methods group, University of Toronto   Toronto, ON

References

Marsha Chechik	**M. Cecilia Bastarrica**
Associate Professor	Profesor Asistente
Dept. of Computer Science	Depto. de Ciencias de la Computación
University of Toronto	Facultad de Ciencias Fisicas y Matemáticas
40 St George Street	Universidad de Chile
Toronto, Ontario, M5S 2E4	Av. Blanco Encalada 2120
CANADA	Santiago
416-978-3820; fax: 416-978-4765	CHILE
chechik@cs.toronto.edu	cecilia@dcc.uchile.cl