Andreas Haas

Address	Department of Computer Sciences
	University of Salzburg
	Jakob-Haringer-Str. 2
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RESEARCH INTERESTS

Concurrent Data Structures, Memory Management,Virtual Execution Environments, Program Verification, Model Checking, Embedded and Real-time Systems, Compiler Construction

EDUCATION

Ph.D. Candidate in Computer Science   **2009 - present**
University of Salzburg, Austria
Ph.D. student of Prof. Christoph M. Kirsch in the field of real-time and embedded systems

Dipl.-Ing. (M.Sc.)   **2007 - 2009**
University of Salzburg, Austria
Computer Science

Bakk.techn. (B.S.)   **2004 - 2007**
University of Salzburg, Austria
Computer Science

WORK EXPERIENCE

Research Assistant   **November 2009 - present**
Prof. Christoph M. Kirsch, University of Salzburg, Austria
[http://www.cs.uni-salzburg.at/∼ck]
Projects:
Short-term Memory: a new model for heap management;
[http://tiptoe.cs.uni-salzburg.at/short-term-memory]
Scal: analysis of various FIFO queue implementations;
[http://scal.cs.uni-salzburg.at]

Intern   **June 2011 - September 2011**
Google Inc., London, UK [http://www.google.com]
Implementation of advanced user interactions in the browser automation framework WebDriver;

Software Engineer   **2002 - 2009**
Tecan Austria GmbH, Grödig, Austria [http://www.tecan.com]
Main activities: Software development: Design and implementation of control and service software
for laboratory devices;

PUBLICATIONS

[1] **Andreas Haas**, Thomas A. Henzinger, Christoph M. Kirsch, Michael Lippautz, Hannes Payer, Ali Sezgin, Ana Sokolova - *Distributed Queues in Shared Memory — Multicore Performance and Scalability through Quantitative Relaxation*, In Proc. International Conference on Computing Frontiers (CF), 2013.

[2] **Andreas Haas**, Christoph M. Kirsch, Michael Lippautz, Hannes Payer - *How FIFO is your Concurrent FIFO Queue?*, In Proc. Workshop on Relaxing Synchronization for Multicore and Manycore Scalability (RACES), 2012.

[3] Martin Aigner, **Andreas Haas**, Christoph M. Kirsch, Michael Lippautz, Ana Sokolova, Stephanie Stroka, Andreas Unterweger - *Short-term Memory for Self-collecting Mutators*, In Proc. International Symposium on Memory Management, 2011.

[4] Martin Aigner, **Andreas Haas**, Christoph M. Kirsch, Ana Sokolova - *Short-term Memory for Self-collecting Mutators - Revised Version*, Technical Report, 2010-06, October 2010, 34pp, University of Salzburg, Austria.

[5] Silviu S. Craciunas, **Andreas Haas**, Christoph M. Kirsch, Hannes Payer, Harald Röck, Andreas Rottmann, Ana Sokolova, Rainer Trummer, Joshua Love, Raja Sengupta - *Information-Acquisition-as-a-Service for Cyber-Physical Cloud Computing*, In Proc. Workshop on Hot Topics in Cloud Computing (HotCloud), 2010.

[6] Martin Aigner, **Andreas Haas**, Christoph M. Kirsch, Hannes Payer, Andreas Schönegger, Ana Sokolova - *Short-term Memory for Self-collecting Mutators*, Technical Report, 2010-03, April 2010, 29pp, University of Salzburg, Austria.

[7] **Andreas Haas** - *Expiration Classes for Implicit Memory Management*, Master Thesis, 2009, University of Salzburg, Austria.

TALKS

[1] *How FIFO is Your Concurrent FIFO Queue?*, RACES Workshop 2012, Tucson, Arizona, 21th of October 2012. (20 min talk)

[2] *How FIFO is Your Concurrent FIFO Queue?*, PUMA Workshop 2012, Goldegg, Austria, 24th of September 2012. (30 min talk)

[3] *Short-term Memory for Self-collecting Mutators*, University of Kent, UK, 29th of September 2011. (45 min talk)

[4] *Short-term Memory for Self-collecting Mutators*, Google Tech Talk, London, UK, 26th of September 2011. (45 min talk)

[5] *Short-term Memory for Self-collecting Mutators*, ISMM 2011, San Jose, California, 5th of June 2011. (25 min talk)

[6] *Automating Heap Management through Short-term Memory*, WRISE 2011, EuroSys 2011, Salzburg, Austria, 10th of April 2011. (30 min talk)

[7] *Short-term Memory for Self-collecting Mutators*, PUMA Workshop 2010, Szentendre, Hungary, 12th of October 2010. (45 min talk)

[8] *Short-term Memory for Self-collecting Mutators: Towards Time- and Space-predictable Virtualization*, RISE Workshop, Graz, Austria, 23rd of February 2010. (30 min talk, together with Ana Sokolova)

CONFERENCE REFEREE
- International Conference on Embedded Systems (EMSOFT) - **2010, 2011, 2013**;
- Design, Automation and Test in Europe (DATE) - **2011, 2013**;
- International Conference on Formal Modeling and Analysis of Timed Systems (FORMATS) - **2012**;
- International Conference on Computer-Aided Design (ICCAD) - **2009, 2011, 2012**;
- International Workshop on Component-Based Design of Resource-Constrained Systems (CORCS) - **2011, 2012**;
- International Conference on Formal Methods and Models for Codesign (MEMOCODE) - **2010, 2012**;
- IEEE Real-Time Systems Symposium (RTSS) - **2011**;
- Workshop on Adaptive and Reconfigurable Embedded Systems (APRES) - **2009**, **2011**;
- Design Automation Conference (DAC) - **2011**;
- IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS) - **2011**;
- International Conference on Embedded and Ubiquitous Computing (EUC) - **2010**;
- International Conference on Object-oriented Programming, Systems, Languages, and Applications (OOPSLA) - **2010**;
- European Conference on Computer Systems (EuroSys) - **2010**;
- International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS) - **2010**;

TEACHING EXPERIENCE
- **Winter 2012/2013**: Lecturer: Proseminar (Practical) Formale Systeme (Logic and Sets), University of Salzburg, Austria (undergraduate level)
- **Winter 2011/2012**: Lecturer: Proseminar (Practical) Formale Systeme (Logic and Sets), University of Salzburg, Austria (undergraduate level)
- **Summer 2010**: Teaching Assistant: Compiler Construction, University of Salzburg, Austria (undergraduate level)

COMMUNITY
- Local arrangement co-chair for EuroSys 2011

OTHER EDUCATION
- **March 2010:** *Quantitative Model Checking Ph.D. School*, organized by the European Network of Excellence ARTIST Design and the Danish VKR Center of Excellence MT-LAB, IT University Copenhagen, Danmark.

PERSONAL SKILLS AND COMPETENCES
- **Languages**
  German (native); English (excellent)
- **Technical Skills**
  Java, C#, JavaScript, C/C++, Algorithm and Data Structure Design, Complexity Theory

REFERENCES

- Christoph M. Kirsch, Professor at the *University of Salzburg*, Austria, Department of Computer Sciences, ck@cs.uni-salzburg.at

- Eran Messeri, Software Engineer, *Google Inc.*, London, UK, eranm@google.com

- Dietmar Winkler, Project Leader, *Tecan Austria GmbH*, Austria, dietmar.winkler@tecan.com

Curriculum Vitae
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