

YU SUN

Software Composition and Modeling Lab
Department of Computer and Information Sciences
University of Alabama at Birmingham

1300 University Blvd, 123B Campbell Hall
Birmingham, AL 35294-1170

205-568-2617
yusun@cis.uab.edu
<http://www.cis.uab.edu/yusun>

EDUCATION

University of Alabama at Birmingham
Ph.D. candidate in Computer Science
Advisor: Dr. Jeff Gray

Birmingham, AL
Expected 2012

M.S. in Computer Science GPA: 3.8/4.0

May 2009

Zhengzhou University

B.S. in Computer Science GPA: 3.9/4.0
GPA Ranking 1st in Computer Science Major Award

Zhengzhou, China
May 2007

EXPERIENCES

University of Alabama at Birmingham
Department of Computer and Information Sciences

Birmingham, AL
January 2008 – present

Graduate Research Assistant

- **Model Transformation By Demonstration (MTBD)**, focusing on simplifying model transformations by demonstration-based inference approach.

By recording user operations on the model instances, model transformation rules or codes will be inferred and generated so that users are enabled to finish model transformation tasks without the knowledge of model transformation languages or metamodel definitions. This work is supported by NSF CAREER Award - CCF-0643725.

Project website: <http://www.cis.uab.edu/softcom/mtbd>

- **Visual Representation for Code Clone Detection Tools**

The aim of this project is to realize a uniform visual representation for different code clone detection tools. Different analysis results provided by different code clone detection tools can be injected into models. These models will be transformed to a generic Code Clone DSL model, and then into an SVG model. Finally, the SVG code can be automatically extracted from SVG model.

Project website: <http://www.eclipse.org/m2m/atl/usecases/VisualRepCodeClone>

PUBLICATIONS

Book Chapters

1. **Yu Sun**, Jules White, Jeff Gray, Aniruddha Gokhale, Douglas C. Schmidt, “Model-Driven Automated Error Recovery in Cloud Computing,” *Model-driven Analysis and Software Development: Architectures and Functions*, edited by Janis Osis and Erika Asnina, IGI Global, Hershey, PA, USA 2010 (Under review)

Refereed Conference Papers

2. **Yu Sun**, Jules White, and Jeff Gray, “Model Transformation by Demonstration,” *International Conference on Model Driven Engineering Languages and Systems (MoDELS)*, Springer-Verlag LNCS 5795, Denver, CO, October 2009, pp. 712-726. (18% Acceptance Rate)
3. Zekai Demirezen, **Yu Sun**, Jeff Gray, and Frederic Jouault, “Supporting Tool Reuse with Model Transformation,” *International Conference on Software and Data Engineering (SEDE)*, Las Vegas, NV, June 2009, pp. 119-125.
4. **Yu Sun**, Zekai Demirezen, Frédéric Jouault, Robert Tairas, and Jeff Gray, “Tool Interoperability through Model Transformations,” *International Conference on Software Language Engineering (SLE)*, Springer-Verlag LNCS 5452, Toulouse, France, September 2008, pp. 178-187.
5. Ritu Arora, **Yu Sun**, Zekai Demirezen, and Jeff Gray, “Profiler Instrumentation Using Metaprogramming Techniques,” *ACM Southeast Conference*, Auburn, AL, March 2008.

Refereed Workshop Papers

6. **Yu Sun**, Zekai Demirezen, Marjan Mernik, Jeff Gray, and Barrett Bryant, “Is My DSL a Modeling or Programming Language?” *Workshop on Domain-Specific Program Development (DSPD)*, held at *International Conference on Generative Programming and Component Engineering (GPCE)*, Nashville, TN, October 2008.
7. **Yu Sun**, Zekai Demirezen, Tomaz Lukman, Marjan Mernik, and Jeff Gray, “Model Transformations Require Formal Semantics,” *Workshop on Domain-Specific Program Development (DSPD)*, held at *International Conference on Generative Programming and Component Engineering (GPCE)*, Nashville, TN, October 2008.

Doctoral Symposium

8. **Yu Sun**, “Model Transformation by Demonstration,” *Doctoral Symposium, International Conference on Object-Oriented Programming, Systems, Languages and Applications (OOPSLA)*, Orlando, FL, October 2009.
9. **Yu Sun**, “Model Transformation by Demonstration,” *Doctoral Symposium, International Conference on Model Driven Engineering Languages and Systems (MoDELS)*, Denver, CO, October 2009.

Tool Demonstration

10. **Yu Sun**, Jules White, and Jeff Gray, “MT-Scribe: A Tool for Recording and Inferring Model Transformations,” *Tool Demonstration, International Conference on Object-Oriented Programming, Systems, Languages and Applications (OOPSLA)*, Orlando, FL, October 2009.

Poster

11. **Yu Sun**, “Supporting Model Evolution through Demonstration-based Model Transformation,” *Students Research Competition, International Conference on Object-Oriented Programming, Systems, Languages and Applications (OOPSLA)*, Orlando, FL, October 2009. (Top 5 Finalist in ACM SIGPLAN Student Research Competition 2009)

NON-REFEREED PRESENTATIONS

- “Model Transformation by Demonstration,” *UAB Graduate Student Research Days*, Birmingham, AL, February 2009.
- “Homogenizing Tool-specific Formats using Model Transformations,” *UAB Graduate Student Research Days*, Birmingham, AL, February 2008.

AWARDS AND HONORS

Competition Awards

- US People’s Choice Award, Software Design Competition, **Microsoft Imagine Cup 2009** (2009)
Project: PDADoctor
Project website: <http://www.cis.uab.edu/softcom/pdadocter>
- US Top 15 Finalist, Software Design Competition, **Microsoft Imagine Cup 2009** (2009)
Project: PDADoctor
Project website: <http://www.cis.uab.edu/softcom/pdadocter>
- Top 5 Finalist in **ACM SIGPLAN Student Research Competition 2009** (2009)
Project: Supporting Model Evolution Through Demonstration-based Model Transformation
Project website: <http://www.cis.uab.edu/softcom/mtbd>
- 3rd place in 2009 **ACM Mid-Southeast Conference Student Paper Competition** (2009)
Paper: Demonstration-based Inference of Model Transformations
- 3rd place in 2007 **ACM Southeast USA Regional Programming Contest** (2007)
With team members: Yu Chang and Walker Haddock
- 3rd place in 2008 **BearingPoint Annual Intercollegiate Programming Competition** (2008)
With team members: Yu Chang and Walker Haddock

Graduate Awards

- Passed Ph.D. Level 1 Qualifying Exam “With Distinction” (2009)
- 2nd place in the Mathematics and Computer and Information Sciences session at the UAB Graduate Student Research Days (2008)

Travel Grants

- From ACM SIGSOFT CAPS to attend MODELS (2009)
- From ACM SIGPLAN to attend OOPSLA Student Research Competition (2009)
- From UAB GSA to attend OOPSLA (2009, 2008)

Undergraduate Awards

- Ranking 1st in Computer Science Major Award (2007)
- Excellent Student Scholarship (2003 – 2007)
- Honor Student (2004 – 2007)
- Excellent Student Leader Award (2004- 2007)

CERTIFICATE

- Sun Certified Java Programmer (SCJP, score: 98%) December 2006
- National Software Engineer Certificate June 2006
Issued by Ministry of Industry and Information Technology of China
- National Programmer Certificate June 2005
Issued by Ministry of Industry and Information Technology of China

PROFESSIONAL ACTIVITIES

Conferences / Meetings Attended

- MODELS *International Conference on Model Driven Engineering Languages and Systems (2009)*
- GPCE *International Conference on Generative Programming and Component Engineering (2009, 2008)*
- OOPSLA *Intl. Conference on Object-oriented Programming, System, Languages, and Applications (2009, 2008)*
- SLE *International Conference on Software Engineering Language (2009)*
- DSPD *International Workshop on Domain-Specific Program Development (2008)*
- DSM *International Workshop on Domain-Specific Modeling (2009, 2008)*
- ACM-MSE *ACM Mid-Southeast Conference (2009)*
- ACM-SE *ACM Southeast Conference (2008)*

Reviewer

- MODELS *International Conference on Model Driven Engineering Languages and Systems (2009)*
- ICSOC *International Conference on Service Oriented Computing (2009)*
- TOOLS *International Conference on Objects, Models, Components, and Patterns (2009)*
- DSL *IFIP Working Conference on Domain Specific Languages (2009)*
- OOPSLA *International Conference on Object-oriented Programming, System, Languages, and Applications (2008)*
- ECMDA *European Conference on Model-Driven Architecture (2008)*
- AOSD *International Conference on Aspect-oriented Software Development (2009, 2008)*
- SLE *International Conference on Software Language Engineering (2008)*
- ACM-SE *ACM Southeast Conference (2008)*
- BOOK *Model-driven Analysis and Software Development: Architectures and Functions, IGI Global (2009)*

Service

- OOPSLA *Student Volunteer, International Conference on Object-Oriented Programming, Systems, Languages, and Applications (2009, 2008)*

TEACHING EXPERIENCES

Teaching Assistant

- CS620/720 Advanced Topics on Software Engineering (Spring 2009)
- CS622/722 Advanced Topics on Reflective and Adaptive Systems (Fall 2008)
- CS410/510 Database Systems I (Fall 2007)

- CS435/535 Network Programming (Fall 2007)

EDUCATION OUTREACH

- **Blazer BEST Robotics Competition**
(October 11, 2008)
Position: Website Judge, Scorekeeper
- **UAB High School Programming Competition**
(2008, 2009)
Position: Volunteer Grader

GRADUATE SUPPORT

- My graduate work is sponsored by the National Science Foundation (NSF), CAREER, “Foundational Principles to Support Evolution in Domain-Specific Modeling.”

TELEVISION / NEWSPAPER INTERVIEWS

- “UAB Students Invent ‘PDA Doctor,’” FOX 6, Birmingham, AL, April 26, 2009, 9pm Evening News.
News link: http://www2.myfoxa.com/dpp/news/20090426_UAB_Students_Invent_PDA_Doctor
- “University of Alabama at Birmingham Team Created Diagnostic Software for Handheld Computers to Aid Doctors,” Birmingham News, April 22, 2009
News link: http://blog.al.com/spotnews/2009/04/university_of_alabama_at_birmi_6.html
- “UAB Wins the People's Choice Award at Microsoft's Imagine Cup,” UAB News, June 8, 2009