# YU SUN, Ph.D.

Assistant Professor Computer Science Department California State Polytechnic University, Pomona

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Birmingham, AL

December 2011

#### **EDUCATION**

## University of Alabama at Birmingham

Ph.D. in Computer Science

Major Field of Study: Software Engineering

Thesis: Model Transformation By Demonstration: An End-User Centric Approach to Support

Model Evolution

Committee: Dr. Jeff Gray (Advisor), Dr. Barrett Bryant, Dr. Jules White,

Dr. Marjan Mernik, Dr. Purushotham Bangalore, Dr. Chengcui Zhang

#### University of Alabama at Birmingham

M.S. in Computer Science

Birmingham, AL May 2009

# Zhengzhou University

B.S. in Computer Science

Zhengzhou, China May 2007

## **PUBLICATIONS**

#### Refereed Journals

- 1. Yu Sun, Jules White, Bo Li, Michael Walker, and Hamilton Turner, "Automated QoS-Oriented Cloud Resource Optimization using Containers," *Automated Software Engineering (Special Issue on Automation in Software Performance Engineering)*, pp. 1-37, 2016
- Thaddeus Czauski, Jules White, Yu Sun, Sean Eade, Douglas C. Schmidt, "NERD Middleware for IoT Human Machine Interfaces", Annals of Telecommunications, 71(3-4), pp. 109-119, 2016
- 3. Hyojoon Bae, Michael Walker, Jules White, Yao Pan, **Yu Sun**, and Mani Golparvar-Fard, "Fast and Scalable Structure-from-Motion based Localization for High-precision Mobile Augmented Reality Systems," *mUX: The Journal of Mobile User Experience*, 5(1), pp. 1-21, 2016
- Hyojoon Bae, Jules White, Mani Golparvar-Fard, Yao Pan, Yu Sun, "Fast and Scalable 3D Cyberphysical Modeling for High-precision Mobile Augmented Reality Systems", Springer Journal of Personal and Ubiquitous Computing, 19(8), pp. 1275-1294, 2015
- 5. **Yu Sun**, Jules White, Sean Eade, and Douglas C. Schmidt, "ROAR: A QoS-Oriented Modeling Framework for Automated Cloud Resource Allocation and Optimization," *Journal of Systems and Software*, 116, pp. 146-161, 2015

- 6. Max Robert, **Yu Sun**, Thomas Goodwin, Hamilton Turner, Jeff Reed, and Jules White, "Software Frameworks for SDR," *Proceedings of IEEE*, vol.103, no.3, pp. 452-475, March 2015, doi: 10.1109/JPROC.2015.2391176, 2015
- 7. **Yu Sun**, Jeff Gray, and Jules White, "A Demonstration-based Model Transformation Approach to Automate Model Scalability," *Journal of Software and Systems Modeling*, DOI: 10.1007/s10270-013-0374-0, 2013.
- 8. **Yu Sun**, Jeff Gray, Romain Delamare, and Benoit Baudry, "Automating the Management of Nonfunctional System Properties using Demonstration-based Model Transformation," *Journal of Software: Evolution and Process*, DOI: 10.1002/smr.1606, vol. 25, no. 12, 2013, pp. 1335-1356.
- 9. Zekai Demirezen, **Yu Sun**, Jeff Gray, and Frédéric Jouault, "Enabling Tool Reuse and Interoperability through Model-Driven Engineering," *Journal of Computational Methods in Science and Engineering (JCMSE)*, vol. 10, no. 2, September 2010, pp. 187-202.

# **Book Chapters**

- 10. Yu Sun, Jeff Gray, Gerti Kappel, Philip Langer, Manuel Wimmer, and Jules White, "A WYSIWYG Approach to Support Layout Configuration in Model Evolutions," Emerging Technologies for the Evolution and Maintenance of Software Models, edited by Jörg Rech and Christian Bunse, Idea Group, ISBN: 978-1-61350-438-32012, 2012, Chapter 4, pp. 92-120.
- 11. **Yu Sun**, Jules White, Jeff Gray, and Aniruddha Gokhale, "Model-Driven Automated Error Recovery in Cloud Computing," *Model-driven Analysis and Software Development: Architectures and Functions*, edited by Janis Osis and Erika Asnina, Idea Group, ISBN: 978-161692-874-2, 2011, Chapter 7, pp. 136-155.

## Refereed Conference Papers

- 12. Arun Singh, Yuexin Li, **Yu Sun**, Qingquan Sun, "An Intelligent Mobile-Based Crowdsourcing Information Notification System for Developing Countries", *EAI International Conference on Machine Learning and Intelligent Communications*, Shanghai, China, August, 2016.
- 13. Michael Ortiz, **Yu Sun**, Gilbert Young, Qingquan Sun, "An Redundant Networking Channel to Support Reliable Communications in the Internet of Things Applications", *EAI International Conference on Machine Learning and Intelligent Communications*, Shanghai, China, August, 2016.
- 14. Qingquan Sun, Eli Gonzales, **Yu Sun**, "On Bed Posture Recognition with Pressure Sensor Array System", *IEEE Sensors*, Orlando, FL, October, 2016.
- 15. Sean Chen, **Yu Sun**, Gilbert Young, "Enhancing the Kinesthetic Learning Activities (KLA) in CS Education Using Mobile Applications", the Annual Conference on Innovation and Technology in Computer Science Education (ITCSE), Arequipa, Peru, 2016.
- 16. Roshan Rathod, Yu Sun, "A Model-Driven Approach to Automate the Development of Communication Channels for Internet of Things Applications", International Conference on Internet of Things and Applications (IOTA), Pune, India, January, 2016.
- 17. Jonathan Bassi, Sukanya Manna and **Yu Sun**, "Construction of a Geo-Location Service Utilizing Microblogging Platforms", *IEEE International Conference on Semantic Computing (ICSC)*, Laguna Hills, CA, Feburary 2016.
- 18. Yao Pan, Jules White, **Yu Sun**, and Jeff Gray, "Gray Computing: Assessing the Potential of Distributed Data Processing in Web Browsers", *International Conference on Software Engineering (ICSE)*, Florence, Italy, May 2015. (18% Acceptance Rate)

- 19. Yu Sun, Hyojoon Bae, Sukanya Manna, Jules White and Mani Golparvar-Fard, "Bridging Semantics with Physical Objects using Augmented Reality", *IEEE International Conference on Semantic Computing (ICSC)*, Anaheim, CA, Feburary 2015.
- 20. Yu Sun, Jules White, and Sean Eade, "A Model-Based System to Automate Cloud Resource Allocation and Optimization", *International Conference on Model Driven Engineering Languages and Systems (MoDELS)*, Valencia, Spain, October 2014, pp. 18-34.
- 21. Yu Sun and Jeff Gray, "Model Transformation By Demonstration Debugger: End-User Support for Debugging Model Transformation Execution", European Conference on Modeling Foundations and Applications (ECMFA), Springer-Verlag LNCS 7949, Montpellier, France, July 2013, pp. 86-100. (23% Acceptance Rate)
- 22. Yu Sun, Jeff Gray, Karlheinz Bulheller, and Nicolaus Von Baillou, "A Model-Driven Approach to Support Engineering Changes in Industrial Robotics Software", *International Conference on Model Driven Engineering Languages and Systems (MoDELS)*, Springer-Verlag LNCS 7590, Innsbruck, Austria, October 2012, pp. 368-382. (23% Acceptance Rate)
- 23. Xianjun Sam Zheng, Stefan Christov, **Yu Sun**, and Xiping Song, "UWoN (User Workflow Notation): A Visualization Tool for User Workflow Analysis and Modeling for Developing Healthcare IT," *International Symposium on Human Factors and Ergonomics in Health Care: Bridging the Gap*, Baltimore, MD, March 2012.
- 24. Yu Sun, Jeff Gray, Christoph Wienands, Michael Golm, and Jules White, "A Demonstration-based Approach to Support Live Transformations in a Model Editor," *International Conference on Model Transformation (ICMT)*, Springer-Verlag LNCS 6707, Zurich, Switzerland, June 2011, pp. 213-227. (21% Acceptance Rate)
- 25. Ferosh Jacob, **Yu Sun**, Jeff Gray, and Puri Bangalore, "A Platform-Independent Tool for Modeling Parallel Programs," *ACM Southeast Conference*, Kennesaw, GA, March 2011, pp. 138-143.
- 26. Yu Sun, Christoph Wienands, and Meik Felser, "Applying Model-Driven Design and Development to Distributed Time-Triggered Systems," *International Conference on Engineering and Meta-Engineering (ICEME)*, Orlando, FL, March 2011.
- 27. 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)
- 28. 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.
- 29. Yu Sun, Zekai Demirezen, Frédéric Jouault, Robert Tairas, and Jeff Gray, "A Model Engineering Approach to Tool Interoperability," *International Conference on Software Language Engineering (SLE)*, Springer-Verlag LNCS 5452, Toulouse, France, September 2008, pp. 178-187.
- 30. Ritu Arora, **Yu Sun**, Zekai Demirezen, and Jeff Gray, "Profiler Instrumentation Using Metaprogramming Techniques," *ACM Southeast Conference*, Auburn, AL, March 2008.

#### Refereed Workshop Papers

- 31. Hyun Cho, Jeff Gray, and **Yu Sun**, "Quality-Aware Academic Research Tool Development," *International Workshop on Software Quality and Management (SQAM)*, held at the Asia-Pacific Software Engineering Conference (APSEC), Hong Kong, December 2012.
- 32. Yu Sun, Hyun Cho, Jeff Gray, and Jules White, "Assisting Feature Model Configuration Knowledge Reuse using Demonstration-based Model Transformation," Workshop on Product Line Approaches in Software Engineering (PLEASE), held at ICSE 2011, Honolulu, HI, May 2011.
- 33. Hyun Cho, **Yu Sun**, Jules White, and Jeff Gray, "Key Challenges for Modeling Language Creation By Demonstration," *Workshop on Flexible Modeling Tools*, held at International Conference on Software Engineering 2011, Honolulu, HI, May 2011.
- 34. Yu Sun, Jeff Gray, Philip Langer, Manuel Wimmer, and Jules White, "A WYSIWYG Approach for Configuring Model Layout using Model Transformations," 10th Workshop on Domain-Specific Modeling (DSM), held at SPLASH 2010, Reno, NV, October 2010.
- 35. **Yu Sun**, Jeff Gray, and Jules White, "MT-Scribe: A Flexible Tool to Support Model Evolution," Workshop on Flexible Modeling Tools (FlexiTools), held at SPLASH 2010, Reno, NV, October 2010.
- 36. Yu Sun, Zekai Demirezen, Marjan Mernik, Jeff Gray, and Barrett Bryant, "Is My DSL a Modeling or Programming Language?" Workshop on Domain-Specific ProgramDevelopment (DSPD), held at International Conference on Generative Programming and Component Engineering (GPCE), Nashville, TN, October 2008.
- 37. 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 Symposia**

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

#### **Tool Demonstrations**

- 40. Yu Sun, Jeff Gray, and Jules White, "MT-Scribe: An End-User Approach to Automate Software Model Evolution," *Tool Demonstration, International Conference on Software Engineering (ICSE)*, Honolulu, HI, May 2011.
- 41. 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.

#### **Posters**

- 42. Yu Sun, "An End-User Demonstration Approach to Support Aspect-Oriented Modeling," *Student Research Competition, International Conference on Software Engineering (ICSE)*, Honolulu, HI, May 2011. (Top 5 Finalist in ACM SIGSOFT Student Research Competition, 2011)
- 43. Yu Sun, "Model Scalability Using a Model Recording and Inference Engine," Students Research Competition, International Conference on Object-Oriented Programming, Systems, Languages and Applications (SPLASH/OOPSLA), Reno, NV, October 2010.

44. 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)

#### Ph.D. Dissertation

45. **Yu Sun**, "Model Transformation By Demonstration: An End-User Centric Approach to Support Model Evolution," *Ph.D. Dissertation*, Department of Computer and Information Sciences, the University of Alabama at Birmingham, Birmingham, AL, December 2011.

#### **Abstracts**

- 46. Yu Sun, "iVote: A Web-Based Classroom Response System for Mobile Platforms", the 18th CSU Symposium on University Teaching, Los Angeles, CA, March, 2015.
- 47. **Yu Sun**, Jeff Gray, Barrett Bryant, "Supporting Aspect-Oriented Modeling through a Demonstration-based Model Transformation Approach," 88th Annual Meeting of the Alabama Academy of Science, Jacksonville, AL, March 2011. (Best Student Paper Award)
- 48. **Yu Sun**, "An End-User Demonstration Approach to Support Aspect-Oriented Modeling," *UAB Graduate Student Research Days*, Birmingham, AL, February 2011.
- 49. **Yu Sun**, "A Demonstration-based Model Transformation Approach to Support Model Scalability," *UAB Graduate Student Research Days*, Birmingham, AL, February 2010.
- 50. **Yu Sun**, "Demonstration-based Inference of Model Transformations," *ACM Mid-Southeast Conference*, Gatlinburg, TN, November 2009.
- 51. **Yu Sun**, "Model Transformation by Demonstration," *UAB Graduate Student Research Days*, Birmingham, AL, February 2009.
- 52. **Yu Sun**, "Homogenizing Tool-specific Formats using Model Transformations," *UAB Graduate Student Research Days*, Birmingham, AL, February 2008.

### WORK EXPERIENCES

California State Polytechnic University, Pomona Computer Science Department

Assistant Professor

Pomona, CA September 2014 – Present

Ziiio Inc.

Co-Founder

Nashville, TN August 2014 – Present

Vanderbilt University

Nashville, TN February 2014 – August 2014

Post-Doc Research Associate

Nashville, TN November 2012 – January 2014

PAR Works Inc.

Director of Engineering

Amazon.com Seattle, WA
Amazon Web Services (AWS) December 2011 – November 2012

Software Development Engineer

Amazon Silk & Kindle Fire

Amazon.com Seattle, WA
Amazon Web Services (AWS) June 2011 – August 2011

CloudFront & Route 53

Software Development Engineer Intern

Siemens Corporate Research

Princeton, NJ

Department of Software & Systems Engineering Technologies

March 2010 – August 2010

Research Intern

University of Alabama Tuscaloosa, AL

Department of Computer Science September 2010 – May 2011

Visiting Scholar

University of Alabama at Birmingham

Department of Computer and Information Sciences

Birmingham, AL

August 2007 – present

Research Assistant

#### AWARDS AND HONORS

#### **Competition Awards**

- Consumer Electronic Show (CES) Innovation Award for PAR Works (2013)
- Technical Achievement Finalist at **SXSW** for PAR Works (2013)
- Accelerator Award Finalist at SXSW for PAR Works (2013)
- US People's Choice Award, Software Design Competition, **Microsoft Imagine Cup** (2009) Project: PDADoctor
- US Top 15 Finalist, Software Design Competition, **Microsoft Imagine Cup** (2009) Project: PDADoctor
- Finalist in **Alabama Launchpad** (2011)

Project: Automax

Collaborated with Bulheller Consulting Inc. and University of Alabama

- Best Student Paper Award in 88th Annual Meeting of the Alabama Academy of Science (2011)
   Paper: Supporting Aspect-Oriented Modeling through a Demonstration-based Model Transformation Approach
- Top 5 Finalist in ACM SIGSOFT Student Research Competition (2011)
   International Conference on Software Engineering (ICSE)
   Project: An End-User Demonstration Approach to Support Aspect-Oriented Modeling
- Top 5 Finalist in **ACM SIGPLAN Student Research Competition** (2009)

  International Conference on Object-Oriented Programming, Systems, Languages and Applications (OOPSLA)

- Project: Supporting Model Evolution Through Demonstration-based Model Transformation
- 3rd place in **ACM Mid-Southeast Conference Student Paper Competition** (2009) Paper: Demonstration-based Inference of Model Transformations
- 3rd place in BearingPoint Annual Intercollegiate Programming Competition (2008)
   With team members: Yu Chang and Walker Haddock
- 3rd place in **ACM Southeast USA Regional Programming Contest** (2007) With team members: Yu Chang and Walker Haddock

#### **Travel Grants**

- From ACM SIGCSE to attend SIGCSE Symposium (2014)
- From ACM SIGSOFT CAPS to attend ICSE (2011)
- From ACM SIGSOFT to attend ICSE Student Research Competition (2011)
- From Alabama Academy of Science (AAS) to attend 88th Annual AAS Meeting (2011)
- From ACM SIGPLAN to attend SPLASH/OOPSLA Student Research Competition (2010)
- 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)

#### **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)

## Undergraduate Awards

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

### **PATENTS**

 Provisional patent application. UWoN (User Workflow Notation): A Formal Workflow-driven Approach for Interactive System Design. (09/24/2010) File No. 61/386,048 (2010P19859 US).

### **INVITED TALKS**

- PolyFounders, Pomona, CA, "Are You Solving the Right Problem Lessons Learned from the Startup and Student Tech Projects", May, 2016
- Diamond Rang High School, Pomona, CA, "Opportunities in Computer Science", May, 2016
- Computer Science Department Alumni Luncheon, "Following the Trend: Showcase of Research Projects in Mobile, Cloud and IoT", March, 2016
- Siemens Corporate Research, Princeton, NJ, "A Practical Perspective on Domain-Specific Modeling -The Good, the Bad, and the Cautious," September, 2011

 Tsinghua University, Beijing, China, "Domain-Specific Modeling and Model Transformation By Demonstration," May, 2011

### PROFESSIONAL ACTIVITIES

#### Reviewer-Journals

- Automated Software Engineering Journal (2014)
- Computer Languages, Systems & Structures (2016, 2015, 2014)
- IEEE Software (2013)
- Proceedings of the IEEE (2013)
- Journal of Software and Systems Modeling (2016, 2015, 2011, 2010)
- Journal of Systems and Software (2011)

#### Reviewer-Books

- Emerging Technologies for the Evolution and Maintenance of Software Models, Idea Group (2011)
- Model-driven Analysis and Software Development: Architectures and Functions, Idea Group (2009)

#### **Reviewer-Conferences**

- International Conference on Software Engineering (2015)
- ACM SIGCHI Symposium on Engineering Interactive Computing Systems (2015)
- International Conference on Model Driven Engineering Languages and Systems (2015, 2014, 2012, 2011, 2010, 2009)
- International Joint Conference on Software Technologies (2014)
- International Conference on Objects, Models, Components, and Patterns (2011, 2010, 2009)
- International Conference on Object-oriented Programming, System, Languages, and Applications (2011, 2008)
- Onward at SPLASH (2010)
- International Conference on Software Composition (2010)
- International Conference on Generative Programming and Component Engineering (2015, 2010)
- International Conference on Aspect-oriented Software Development (2010, 2009, 2008)
- International Conference on Software Language Engineering (2013, 2010, 2008)
- International Conference on Service Oriented Computing (2009)
- IFIP Working Conference on Domain Specific Languages (2009)
- European Conference on Model-Driven Architecture (2008)
- ACM Southeast Conference (2008)

#### **External Committees**

- Program Committee
   IEEE/ACM International Conference on Mobile Software Engineering and Systems (2016)
- Program Committee
   Workshop on Modeling in Software Engineering at International Conference on Software Engineering (2016)
- Publicity Chair Software Product Line Conference (2015)

• Program Committee

The 19th International Software Product Line Conference (2015)

• Program Committee

MobileDeLi Workshop: Mobile Development Lifecycle (2015)

• Program Committee

Workshop on Modeling in Software Engineering at International Conference on Software Engineering (2015)

Program Committee

The 13th IEEE International Conference on Embedded and Ubiquitous Computing (2015)

Program Committee

The 2015 Thailand Workshop on Software Engineering at The Tenth International Conference on Knowledge, Information and Creativity Support Systems (2015)

• Program Committee

Workshop on Domain-Specific Modeling at ACM SIGPLAN Conference on Systems, Programming, Languages and Applications: Software for Humanity (2015)

Program Committee

Workshop on Domain-Specific Modeling at ACM SIGPLAN Conference on Systems, Programming, Languages and Applications: Software for Humanity (2014)

#### Service

Student Volunteer

International Conference on Object-Oriented Programming, Systems, Languages, and Applications (2010, 2009, 2008)

Senator

Graduate Student Association, University of Alabama at Birmingham (2009 – 2011)

## Conferences / Meetings Attended

- International Conference on Semantic Computing (2015)
- ACM Technical Symposium on Computer Science Education (SIGCSE) (2015)
- International Software Product Line Conference (2015)
- CSU Symposium on University Teaching (2015)
- SoCal PKAL Meeting (2015)
- SoCal Innovation Forum (2015)
- International Conference on Model Driven Engineering Languages and Systems (2014, 2009)
- European Conference on Modeling Foundations and Applications (2013)
- European Conference on Object-Oriented Programming (2013)
- Augmented World Expo (2013)
- South by Southwest (2013)
- Consumer Electronics Show (2013)
- International Conference on Software Engineering (2011)
- International Conference on Object-oriented Programming, System, Languages, and Applications (2010, 2009, 2008)
- International Symposium on the Foundations of Software Engineering (2010)
- International Workshop on Domain-Specific Program Development (2008)
- International Workshop on Domain-Specific Modeling (2010, 2009, 2008)

- Alabama Academy of Science Annual Meeting (2011)
- International Conference on Software Engineering Language (2009)
- International Conference on Generative Programming and Component Engineering (2009, 2008)
- ACM Mid-Southeast Conference (2009)
- ACM Southeast Conference (2008)

# **ACADEMIC SERVICES**

## **Student Advising**

Master Project/Thesis Advisor

- Fariba Derakhshan (2016 present)
- Atena Daneshmandi (2016 present)
- Renita Priya (2016 present)
- Joaquin Gonzalez (2016 present)
- Steven Parkin (2015 present)
- Yiming Shan (2015 present)
- Jonathan Johannsen (2015 present)
- Iain Lee (2016)
- Danqing Zhao (2016)
- Kshitija Shinde (2016)
- Michael Ortiz (2016)
- Zheng Lu (2016)
- Xun Xu (2016)
- Ana Nenova (2016)
- Keerthana Chilukuri (2016)
- Arun Singh (2016)
- Sean Chen (2016)
- Roshan Rathod (2016)
- Abdulwahed Alharbi (2016)

### Master Project/Thesis Co-Advisor

- Steve Jankly (2016)
- Mark Lai (2016)
- Garen Kutukian (2016)
- Hesham Darwish (2016)
- Uday Prabhala (2016)
- Xing Hu (2016)
- Peter Chen (2016)
- Kwang Jun (2015)

- Tyson Phillips (2015)
- Minfeng Chen (2015)

### Undergraduate Research Mentor

- David Luong (2014 2016)
- Jenifer Wang (2014 2015)
- Ankur Oswal (2014 2015)

#### High School Student Mentor

- Hang Wang, University High School, Irvine, CA (2016 present)
- Danny Ying, Claremont High School, Claremont, CA (2016)
- Yuexin Li, Branksome Hall, Toronto, Canada (2016)
- Victor Sui (2014 2015)

#### Middle School Student Mentor

• Kevin Du, Jeffery Trail Middle School, Irvine, CA (2016)

# University Service at Cal Poly Pomona

- Outstanding Advisor Review/Selection Committee for the College of Science (2015 2016)
- College of Science Advising Task Force Committee (2015 2016)
- Search Committee for Faculty Director of Student Innovation/Entrepreneurship (2014 2015)
- Judge for HackPoly (2015)
- Judge Bronco Startup Challenge (2015)

#### Computer Science Department Service at Cal Poly Pomona

- Graduate Committee (2014 present)
- Laboratory Committee (2014 present)
- Scholarship Committee (2014 present)
- Assessment Committee (2014 present)

## **TEACHING EXPERIENCES**

#### **Course Instructor**

•	CS480	Software Engineering (Fall 2016, Summer 2016, Winter 2015, Fall 2015)
•	CS499	Mobile Application Development (Winter 2016, Spring 2015)
•	CS240	Data Structures and Algorithms I (Spring 2015, Summer 2016, Fall 2015)
•	CS585	Software Verification and Validation (Fall 2016, Winter 2015)
•	CS356	Object-Oriented Design and Programming (Fall 2016, Summer 2015, Fall 2014)
•	CS580	Advanced Software Engineering (Winter 2016, Fall 2014)
•	CS461	Senior Project I (2014 – present)
•	CS462	Senior Project II (2014 – present)

# **Teaching Assistant**

•	CS501/401	Programming Languages (Spring 2010)
•	CS620/720	Advanced Topics on Software Engineering (Spring 2009)
•	CS622/722	Advanced Topics on Reflective and Adaptive Systems (Fall 2008)
•	CS303	Algorithms and Data Structures (Spring 2008)
•	CS201	Introduction to Object-Orient Programming (Spring 2008)
•	CS410/510	Database Systems I (Fall 2007)
•	CS435/535	Network Programming (Fall 2007)
•	CS101	Fluency With Information Technology (Fall 2007)

# **EDUCATION OUTREACH**

# Google AppliedCS

Pomona, CA (June-July, 2016) Faculty Director

# Mobile App Programming Summer Camp

Pomona, CA (July 25-28, 2016) Organizer and Lead Instructor

## Google Ignite CS on Android Development using App Inventor

Pomona, CA (April - May, 2016) Team Lead

# Google AppliedCS

Pomona, CA (April-May, 2016) Faculty Director

### • Alabama Robotics Competition

(April 2, 2011) Competition Judge

# • Blazer BEST Robotics Competition

(October 11, 2008) Website Judge, Scorekeeper

# • UAB High School Programming Competition

(2008, 2009, 2010) Grader, Event coordinator

### Alice Film Festival

(2008, 2009) Event coordinator

# **FUNDING**

 Co-PI (Sub-award). National Institutes of Health (NIH) DP3 DK097706, "Using Social Learning to Improve Adolescent Diabetes Adherence Problem Solving", \$8,115 (2016)

- PI. Google Ignite CS, "Teaching Android Development in High School with an Startup Accelerator Program", \$7,400 (2016)
- PI. California State Polytechnic University, Pomona: Faculty Mini-Grant Program, "A Photo-based Turn-by-Turn Mobile Indoor Navigation System", \$880 (2016)
- Co-PI (Sub-award). National Institutes of Health (NIH) DP3 DK097706, "Using Social Learning to Improve Adolescent Diabetes Adherence Problem Solving", \$9,703 (2015)
- PI. California State Polytechnic University, Pomona: Special Projects for Improving the Classroom Environment (SPICE), "A Web-Based Classroom Response System using Mobile Devices", \$17,048 (2015)
- PI. Citrus College/Cal Poly Pomona Summer Research Experience, "Automating Context-Aware Information Retrieval and Notification for Mobile Platforms", \$3,000 (2015)
- PI. California State Polytechnic University, Pomona: Research Scholarship, and Creative Activity (RSCA), "A QoS-Oriented Automation Framework for Cloud Resource Allocation and Optimization", \$5,000 (2014)
- PI. California State Polytechnic University, Pomona: Faculty Mini-Grant Program, "A Context Aware Mobile Information Notification System for Campus Environment", \$1,000 (2014)

## PROFESSIONAL MEMEBERSHIPS

- Association for Computing Machinery (ACM)
- ACM SIGSOFT (Special Interest Group on Software Engineering)
- ACM SIGCSE (Special Interest Group on Computer Science Education)
- IEEE Computer Society

### **CERTIFICATE**

•	Sun Certified Web Component Developer (SCWCD, score: 97%)	October 2010
•	Sun Certified Java Developer (SCJD)	August 2010
•	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	3

# TELEVISION / NEWSPAPER INTERVIEWS

- "UAB Students Invent 'PDA Doctor'," FOX 6, Birmingham, AL, April 26, 2009, 9pm Evening News.
- "University of Alabama at Birmingham Team Created Diagnostic Software for Handheld Computers to Aid Doctors," Birmingham News, April 22, 2009
- "UAB Wins the People's Choice Award at Microsoft's Imagine Cup," UAB News, June 8, 2009