YU SUN, Ph.D.

Professor
Computer Science Department
California State Polytechnic University, Pomona

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Pomona, CA 91768 https://yusun.io/

EDUCATION

University of Alabama at Birmingham Birmingham, AL
Ph.D. in Computer Science December 2011

Major Field of Research: 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 Birmingham, AL
M.S. in Computer Science May 2009

Zhengzhou University Zhengzhou, China
B.S. in Computer Science May 2007

PUBLICATIONS

Refereed Journals

1. Charline Chen, **Yu Sun**, "Analyzing the Effects of Different Policies And Strictness Levels On Monthly Coronavirus Case Increase Rates Using Machine Learning And Big Data Analysis", *International Journal of Data Mining & Knowledge Management Process (IJDKP)*, vol. 12, no. 4, 2022.
2. Mike Qu, **Yu Sun**, "An IOT-Based Crowd Sourcing System for Object Tracking and Information Sharing", *The International Journal of Artificial Intelligence & Applications (IJAIA)*, vol. 10, no. 1, January 2019.
3. Bo Guo, Junrui Zhao, **Yu Sun**, "Analyzing Characteristics and Dynamics of User Behaviors in Social Q&A Community: Case Study of Zhihu.com", *Data Analysis and Knowledge Discovery*, vol. 2, no. 4, pp. 48-58, 2018.
4. Yao Pan, Jules White, **Yu Sun**, and Jeff Gray, "Gray Computing: A Framework for Computing with Background JavaScript Tasks", *IEEE Transactions on Software Engineering*, November 2017. 10.1109/TSE.2017.2772812
5. Bo Guo, Li Shouguang, Wang Hao, Zhang Xiaojun, Gong Wei, Yu Zhaojun, and **Yu Sun**, "Examining Product Reviews with Sentiment Analysis and Opinion Mining", *Journal of Data Analysis and Knowledge Discovery*, vol. 12, no. 12, 2017.

6. Paul T. Chiou, **Yu Sun**, and G S. Young, "A Survey to Real Time Message Routing Network System with KLA Modelling", *International Journal in Foundations of Computer Science & Technology (IJFCST)*, Vol.7, No.3/4, pp.1-22, July 2017. DOI:10.5121/ijfcst.2017.7401
7. **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.
8. 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.
9. 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.
10. Hyojoon Bae, Jules White, Mani Golparvar-Fard, Yao Pan, **Yu Sun**, "Fast and Scalable 3D Cyber-physical Modeling for High-precision Mobile Augmented Reality Systems", *Springer Journal of Personal and Ubiquitous Computing*, 19(8), pp. 1275-1294, 2015.
11. **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.
12. 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.
13. **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.
14. **Yu Sun**, Jeff Gray, Romain Delamare, and Benoit Baudry, "Automating the Management of Non-functional 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.
15. 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

16. **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.
17. **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

18. Zoe Wood, Yu Sun, "Socially Responsible Computing: Promoting Latinx Student Retention Via Community Engagement in Early Computer Science Courses," *ASEE Annual Conference & Exposition*, Portland, OR, June, 2024.

21. Linchi Kwok, Ceiara Madrigal, **Yu Sun**, "How do Consumers Respond to Hotels' Sustainability Efforts? Developing a Sustainability Index for the Lodging Industry with Business- and User-generated Content," *The 2023 iHITA (International Hospitality Information Technology Association) Annual Conference*, Toronto, Canada, June, 2023.
22. Hang Wang, Evan Gunnell, **Yu Sun**, "A Pose-based Image Searching using Computer Vision and Post-Estimate", *8th International Conference on Computer Science, Information Technology (CSITEC)*, Zurich, Switzerland, January, 2022.
23. Andrew Shen, **Yu Sun**, "GraphicalAI: A User-Centric Approach to Develop Artificial Intelligence and Machine Learning Applications using a Visual and Graphical Language", *2nd International Conference on Computer Science, Engineering and Education*, Barcelona, Spain, February 2021.
24. Ghada M. Gad, Giuseppe Lomiento, **Yu Sun**, "Introducing EngOTG: A Framework for an Audio Study Material App for Engineering Students", *ASEE Annual Conference & Exposition*, Tampa, FL, June, 2019.
25. Mike Qu, Qi Lu, **Yu Sun**, "A Bluetooth-Based Proximity Sensing and Object-Tracking System", *10th International Conference on Database Management Systems*, Copenhagen, Denmark, September, 2019.
26. Clark Ren, **Yu Sun**, Fangyan Zhang, "An Adaptive and Smart System for Parental Control On Digital Games", *8th International Conference on Software Engineering and Applications (JSE 2019)*, Copenhagen, Denmark, September, 2019.
27. Joanne Wang, Shiyu Feng, Amanda Zhu, Alina Yue, Fangyan Zhang, **Yu Sun**, "Reminiscence: A Mobile Intelligent System to Assist Dementia Patients", *8th International Conference on Information Technology Convergence and Services*, Copenhagen, Denmark, September, 2019.
28. Melissa Qian, Fangyan Zhang, **Yu Sun**, "An Intelligent Internet-Of-Things (IoT) Door Bell System for Smart Notification Alert", *6th International Conference on Artificial Intelligence & Applications*, Copenhagen, Denmark, September, 2019.
29. Patrick Gu, Fangyan Zhang, **Yu Sun**, "An Intelligent Mobile Application to Automate Food Health Recommendation Using Deep Learning", *9th International Conference on Advances in Computing and Information Technology*, Copenhagen, Denmark, September, 2019.
30. Shikai Gong, **Yu Sun**, Fangyan Zhang, "An Event-Driven Data Analytics Management Platform to Monitor and Predict Lightning Event using electric insulator depends on Artificial Intelligence", *7th International Conference on Computer Technology and Science*, Ho Chi Minh, Vietnam, December 2018.
31. Andrew Tang, **Yu Sun**, Fangyan Zhang, "An Intelligent Recording, Playback, and Text Input System for French Spelling Tests", *7th International Conference on Computer Technology and Science*, Ho Chi Minh, Vietnam, December 2018.
32. Zehao Li, **Yu Sun**, Fangyan Zhang, "An Intelligent Business Inventory Management Application Using Artificial Intelligence and Voice Recognition", *8th International Conference on Artificial Intelligence, Soft Computing and Applications*, Melbourne, Australia, November 2018.
33. Kelvin Lee, **Yu Sun**, Fangyan Zhang, "An Intelligent Schedule Reminder Application using an Artificial Intelligence-based Chatbot", *7th International Conference on Computer Technology and Science*, Ho Chi Minh, Vietnam, December 2018.
34. Felianne Teng, **Yu Sun**, Fangyan Zhang, "Devising an Application to Decrease Procrastination", *7th International Conference on Computer Technology and Science*, Ho Chi Minh, Vietnam, December 2018.

35. Kevin Gao, **Yu Sun**, Fangyan Zhang, and Bo Guo, "SmartStress: A Machine Learning-based Stress Management and Assistance System", *The 20th International Conference on Artificial Intelligence*, Las Vegas, NV, July 2018.

36. Tannaz Rezaei Damavandi, Sampath Jayarathna, **Yu Sun**, "Modeling CDC Data for Real Time Feature Estimation", *The 19th IEEE International Conference on Information Reuse and Integration*, Salt Lake City, UT, July, 2018.

37. Wenjie Fu, **Yu Sun**, Fangyan Zhang, and Bo Guo, "An Intelligent System to Predict Future Performance of Youth Football Players using Machine Learning", *The 20th International Conference on Artificial Intelligence*, Las Vegas, NV, July 2018.

38. Yujie Hu, **Yu Sun**, Fangyan Zhang, and Bo Guo, "SmartCarb: An Intelligent Mobile System to Assist Diet Control for Gestational Diabetes Patients using Deep Learning Neural Networks", *The 4th International Conference on Health Informatics and Medical Systems*, Las Vegas, NV, July 2018.

39. Paul T. Chiou, **Yu Sun**, and G S. Young, "PAULS CART 2.0: An Improved Assistive System to Support Inclusive", *The 14th International Conference on Frontiers in Education: Computer Science and Computer Engineering*, Las Vegas, NV, July, 2018.

40. Jessica Kwok, **Yu Sun**, "A Smart IoT-Based Irrigation System with Automated Plant Recognition using Deep Learning", *The 7th International Conference On Intelligent Computing And Applications*, Sydney, Australia, January, 2018.

41. Renita Priya, Xinyuan Wang, Yujie Hu, **Yu Sun**, "A Deep Dive into Automatic Code Generation Using Character Based", *International Conference on Computational Science and Computational Intelligence*, Las Vegas, NV, December 2017.

42. Yiming Shan, Xinyuan Wang, Yujie Hu, **Yu Sun**, "An Intelligent Mobile Application for Maximizing Credit Card Rewards", *International Conference on Computational Science and Computational Intelligence*, Las Vegas, NV, December 2017.

43. Bo Guo, Hao Wang, Zhaojun Yu, **Yu Sun**, "Detecting Spammers in E-commerce Website via Spectrum Features of User Relation Graph", International Conference on Advanced Cloud and Big Data, Shanghai, China, August 2017.

44. Bo Guo, Hao Wang, Zhaojun Yu, **Yu Sun**, "Detecting the Internet Water Army via comprehensive behavioral features using large-scale E-commerce reviews", *International Conference on Computer, Information, and Telecommunication Systems*, Dalian, China, July 2017.

45. Paul T. Chiou, **Yu Sun**, and G S. Young, "A Complexity Analysis of the JPEG Image Compression Algorithm", *9th Computer Science and Electronic Engineering Conference (CEEC)*, Colchester, UK, September, 2017.

46. Jiahao Li, **Yu Sun**, Fangyan Zhang, "An Intelligent Self-Adaptive System To Automate The Sprinkler Control", *7th International Conference on Computer Science, Engineering and Applications (ICCSEA)*, Copenhagen, Denmark, September, 2017.

47. Meghan Wang, **Yu Sun**, "An Innovative Social Mobile Platform To Support Real-Time Communication In Peer Tutoring", *7th International Conference on Computer Science, Engineering and Applications (ICCSEA)*, Copenhagen, Denmark, September, 2017.

48. Runxuan Li, **Yu Sun**, Qingquan Sun, "Automated Flowering Time Prediction using Data Mining and Machine Learning", *EAI International Conference on Machine Learning and Intelligent Communications*, Weihai, Shandong, China, August 2017.

49. Hang Wang, **Yu Sun**, Qingquan Sun, "A Geo-Based Fine Granularity Air Quality Prediction using Machine Learning and Internet-Of-Things", *EAI International Conference on Machine Learning and Intelligent Communications*, Weihai, Shandong, China, August 2017.

50. Qingquan Sun, Jiang Lu, **Yu Sun**, Haiyan Qiao, Yunfei Hou, "Space Encoding Based Compressive Tracking with Wireless Fiber-Optic Sensors", *EAI International Conference on Machine Learning and Intelligent Communications*, Weihai, Shandong, China, August 2017.

51. Tsaihsuan Yang, **Yu Sun**, "An Intelligent and Automated PDF Format Checker", *The 13th International Conference on Frontiers in Education: Computer Science and Computer Engineering*, Las Vegas, NV, July, 2017.

52. Jonathan Johannsen, **Yu Sun**, "An Intelligent and Semantics-Aware Distraction-Free Writing System", *IEEE International Conference on Semantic Computing (ICSC)*, San Diego, CA, January 2017.

53. Kshitija Shinde, **Yu Sun**, "Template-Based Code Generation Framework for Data-Driven Software Development", *International Conference on Applied Computing and Information Technology*, Las Vegas, NV, December, 2016.

54. Iain Lee, Yuexin Li, **Yu Sun**, "An Intelligent Approach to Review Filtering and Review Quality Improvement", *International Conference on Applied Computing and Information Technology*, Las Vegas, NV, December, 2016.

55. Yao Pan, Jules White, **Yu Sun**, "Assessing the Threat of Web Worker Distributed Attacks", *IEEE Conference on Communications and Network Security*, Philadelphia, PA, October 2016.

56. Qingquan Sun, Eli Gonzales, **Yu Sun**, "On Bed Posture Recognition with Pressure Sensor Array System", *IEEE Sensors*, Orlando, FL, October, 2016.

57. 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.

58. 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.

59. 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.

60. 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.

61. 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.

62. 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)

63. **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.

64. **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.

65. **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)

66. **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)

67. 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.

68. **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)

69. 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.

70. **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.

71. **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)

72. 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.

73. **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.

74. Ritu Arora, **Yu Sun**, Zekai Demirezen, and Jeff Gray, "Profiler Instrumentation Using Metaprogramming Techniques," *ACM Southeast Conference*, Auburn, AL, March 2008.

Refereed Workshop Papers

75. 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.

76. **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.

77. 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.

78. **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.

79. **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.

80. **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.

81. **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

82. **Yu Sun**, "Model Transformation by Demonstration," *Doctoral Symposium, International Conference on Object-Oriented Programming, Systems, Languages and Applications (OOPSLA)*, Orlando, FL, October 2009.

83. **Yu Sun**, "Model Transformation by Demonstration," *Doctoral Symposium, International Conference on Model Driven Engineering Languages and Systems (MoDELS)*, Denver, CO, October 2009.

Tool Demonstrations

84. **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.

85. **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

86. **Yu Sun**, "iVote: A Web-Based Mobile Classroom Response System", *PolyTeach*, Pomona, CA, April 2017.

87. Paul Chiou, **Yu Sun**, "An Empirical Study of Accessibility Practices on Google Play's Top Free Android Applications", *3rd Cal Poly Pomona Creative Activities and Research Symposium*, Pomona, CA, August 2017.

88. **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)

89. **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.

90. **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

91. **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

92. Paul Chiou, **Yu Sun**, "EnvisioNyx: An Automated Assistive Tool to Integrate Web Accessibility Compliance for the Visually Impaired", *Southern California Conferences for Undergraduate Research*, Pomona, CA, November 2017.
93. **Yu Sun**, "iVote: A Web-Based Classroom Response System for Mobile Platforms", the 18th CSU Symposium on University Teaching, Los Angeles, CA, March, 2015.
94. **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)
95. **Yu Sun**, "An End-User Demonstration Approach to Support Aspect-Oriented Modeling," *UAB Graduate Student Research Days*, Birmingham, AL, February 2011.
96. **Yu Sun**, "A Demonstration-based Model Transformation Approach to Support Model Scalability," *UAB Graduate Student Research Days*, Birmingham, AL, February 2010.
97. **Yu Sun**, "Demonstration-based Inference of Model Transformations," *ACM Mid-Southeast Conference*, Gatlinburg, TN, November 2009.
98. **Yu Sun**, "Model Transformation by Demonstration," *UAB Graduate Student Research Days*, Birmingham, AL, February 2009.
99. **Yu Sun**, "Homogenizing Tool-specific Formats using Model Transformations," *UAB Graduate Student Research Days*, Birmingham, AL, February 2008.

APPOINTMENTS

California State Polytechnic University, Pomona
Computer Science Department
Professor
Pomona, CA
September 2024 – Present

California State Polytechnic University, Pomona
Computer Science Department
Associate Professor (Early Tenure)
Pomona, CA
September 2019 – August 2024

California State Polytechnic University, Pomona
Computer Science Department
Assistant Professor
Pomona, CA
September 2014 – August 2019

Vanderbilt University
Adjunct Professor
Nashville, TN
August 2020 – present

Coding Mind — Irvine, CA
Founder and CEO — July 2016 – Present

Ziiio Inc. — Nashville, TN
Co-Founder — August 2014 – 2019

Vanderbilt University — Nashville, TN
Post-Doc Research Associate — February 2014 – August 2014

PAR Works Inc. — Nashville, TN
Director of Engineering — November 2012 – January 2014

Amazon.com — Seattle, WA
Amazon Web Services (AWS) — December 2011 – November 2012
Amazon Silk & Kindle Fire

Software Development Engineer

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 — March 2010 – August 2010
Technologies

Research Intern

University of Alabama — Tuscaloosa, AL
Department of Computer Science — September 2010 – May 2011

Visiting Scholar

University of Alabama at Birmingham — Birmingham, AL
Department of Computer and Information Sciences — August 2007 – present

Research Assistant

AWARDS AND HONORS

Academic Awards

- **College of Science Distinguished Teaching Award** (2017-2018)
- Faculty Mentor Research Stars (2018-2019)

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 NSA to attend 2018 GenCyber Spring Meeting (2018)
- From NSF to attend NSF CS4All RPP Workshop (2018)
- 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

- Panel Discussion, College of Extended University, Cal Poly Pomoan, Pomona, CA, "SIELP 2020", November, 2020
- College Seminar, College of Science, Cal Poly Pomona, Pomona, CA, "Grow with the Students", September, 2018
- Guest Lecture, Portola High School, Irvine, CA, "A Brief Introduction to AI and Big Data", October, 2018
- Training Talk for Guizhou Normal University, Pomona, CA, "Artificial Intelligence and Education Applications", September, 2018
- Training Lecture for Agriculture + Big Data Training Program, Pomona, CA, "Trending Cloud Computing, Mobile Computing and Big Data Analysis", August, 2018
- Irvine Community Lecture Series, Irvine, CA, "Opportunities in Computer Science: Why to Learn and How to Learn", April, 2018
- Future Women Developer Conference, Pomona, CA, "Opportunities for Female Students in Computer Science", April, 2018
- Los Angeles Venture Association (LAVA), Santa Monica, CA, "Artificial Intelligence in Healthcare: Hype or Reality?", March, 2018
- Training Lecture for the Industrial Information Technology and Smart Manufacture Training Program, Pomona, CA, "Trending Cloud Computing, Mobile Computing and Big Data Analysis", January, 2018
- Training Lecture for the Shangdong Information Technology Department Executive Training Program, Pomona, CA, "Trending Cloud Computing, Mobile Computing and Big Data Analysis", December, 2017
- Keynote Speech for Training Program on the Digital Archive Authenticity Strategy for Jiangsu Provincial Archives, Pomona, CA, "Cloud Computing Applications for the Digital Archive Industry", December, 2017
- Shangdong Information Technology Department Visiting Workshop, Pomona, CA, "Trending Cloud Computing, Mobile Computing and Big Data Analysis", November, 2017
- Training Talk for the Internet+ Government Affairs Service & Technology on Realization of Public Service Software Engineering for State Administration for Quality Supervision and Inspection and Quarantine, Pomona, CA, "Cloud Computing and Big Data Innovations", December, 2017

- 21st Century Career Conference at Irvine Unified School District (IUSD), Irvine, CA, "Opportunities in Computer Science", December, 2017
- Computer Science Engineering Club at Claremont High School, Claremont, CA, "Opportunities in Computer Science", December, 2017
- Virtual Guest Lecture for Virginia State University, "Computer Science and Software Industry", October, 2017
- Labdoo Club at Cal Poly Pomona, Pomona, CA, "Why the Work Labdoo at Matters", October, 2017
- IgniteCS Club at Cal Poly Pomona, Pomona, CA, "Computer Science Education and the Trending Technologies", October, 2017
- Anyang Normal Univeristy, Anyang, Henan, China, "The Trends of Computer Science Education in the US from the Personal Perspective", September, 2017
- Anyang Normal Univeristy, Anyang, Henan, China, "Solving the Right Problem: Making the Right First Move on Creating a Startup", September, 2017
- WeIrvine, Irvine, CA, "Opportunities in Computer Science: Why to Learn and How to Learn", August, 2017
- IgniteCS Club, Pomona, CA, "Teaching Computer Science", May, 2017
- Enlightened Learning Club (ELC), Upland, CA, "Opportunities in Computer Science", May 2017
- Collegiate Entrepreneurs Organization, Pomona, CA, "Are You Solving the Right Problem - Lessons Learned from the Startup and Student Tech Projects", February, 2017
- CPP Game Design & Development Club, Pomona, CA "How to Succeed in Android Development", February, 2017
- Qinnan Normal University Training Workshop, Pomona, CA, "Cloud Computing and Big Data in Practice"
- Cal Poly Pomona Excellence of Showcase, Pomona, CA, "Showcase of Excellence Computer Science @ Cal Poly Pomona", January, 2017
- SheCodes, Pomona, CA, "Opportunities in Computer Science", October, 2016
- Shangdong Information Technology Department Visiting Workshop, Pomona, CA, "A Practical Perspective on the Software Industry in the United States", October, 2016
- 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 (2018, 2017, 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 (2017, 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 (2016, 2008)

External Committees
- Program Committee
  ACM SIGCSE the Technical Symposium on Computer Science Education (2024)
- Publicity Chair
  IEEE International Conference on Information Reuse and Integration (2017)
- Program Committee
  Workshop on Modeling in Software Engineering at International Conference on Software Engineering (2017)
- 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

- 2023 GenCyber Spring Meeting, NSA and NSF, Baltimore, MD (2023)
- College Board AP Computer Science A Advisory Board Meeting, New Orleans, LA (2023)
- 2018 GenCyber Spring Meeting, NSA and NSF, Seattle, WA (2018)
- NSF CS4All RPP Workshop, Chicago, IL (2018)
- International Conference on Semantic Computing (2017, 2015)
- International Conference on Applied Computing & Information Technology (ACIT) (2016)
- 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

- Fanghua Gu (2024)
- Madhurima Budugu (2024)
- Archana Garudanagiri Vidyashankar (2024)
- Monica Say (2023)
- William Baires (2023)
- Chau Huynh (2023)
- Thuan Tang (2022)
- Khuong Le (2022)
- Nandan Vinjamury (2021)
- Adebunmi Adeyemo (2021)
- Leng Zhang (2021)
- Nghi Tran (2021)
- Jayavardhan Patil (2021)
- Ankita Patil (2021)
- Harpreet Singh (2020)
- Sunit Bhopal (2020)
- Chenghao Chen (2020)
- Bhawana A. Purandare (2020)
- Phuoc G. Ngo (2020)
- Spoorthi Basu (2020)
- Kevin Liu (2020)
- Bhargav Parekh (2019)
- Henry Liu (2019)
- Veeresh Kanduri (2019)
- Hung Lay (2019)

- Surekha Achanta (2019)
- Kevin Ali (2019)
- Jose Silva Ponce (2018)
- Vatsal Thakar (2018)
- Yuancheng Li (2018)
- Pratik Bhagtani (2018)
- Ashish Pulikkal (2018)
- Darshan Jethwa (2018)
- Vatsal Thakar (2018)
- Amani Zamzami (2018)
- Vladyslav Shevelov (2018)
- Satyam Nikhra (2018)
- Tarun Mogra (2018)
- Pavan Soundara (2018)
- Vaishali Chaurasia (2018)
- Daniel Acevedo (2018)
- Nawaf Alsufiani (2018)
- Di Yao (2018)
- Irwin Soni (2018)
- Siavash Motalebi (2018)
- Tannaz Rezaei (2018)
- Thong Pham (2018)
- Michael Tran (2018)
- Bharat Devaguptapu (2017)
- Nanwarin Chantarutai (2017)
- Fariba Derakhshan (2017)
- Kenny Iraheta (2017)
- Atena Daneshmandi (2017)
- Renita Priya (2017)
- Kushal Patel (2017)
- Tsai Hsuan Yang (2017)
- Yiming Shan (2017)
- Chantal Fry (2016)
- Jonathan Johannsen (2016)
- 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

- Kevin Kim (2024)
- Priyatham Sai Chand Bazaru (2024)
- Yennhi Dang (2024)
- Ammar Arif (2023)
- Jilin Ding (2023)
- Justin Pulido (2023)
- Ammar Arif (2023)
- Nikita Mattingly (2022)
- Deon Seyfi (2022)
- Matthew Segovia (2022)
- Ngan Nguyen (2022)
- Derek Yee (2022)
- Huy Doan (2022)
- John Morris (2021)
- Kallie Chang (2021)
- Xinyu Luan (2021)
- Gerardo Granado (2021)
- Milush Yanev (2021)
- Marisabel Chang (2021)
- Johnson Wei (2021)
- Chy M. Lim (2021)
- Karan Kohli (2020)
- Hao Zheng (2020)
- Yichi Yan (2020)
- Yekun Yang (2020)
- Melody Cheng (2020)
- Bonnie Ngu (2020)
- Juan Rodriguez (2020)

- Hemanshi V. Dobaria (2020)
- Wilsen N. Kosasih (2020)
- Hetsi B. Shah (2020)
- Chi Wang (2019)
- Laxmi Chidri (2019)
- Divya Ramayampet (2019)
- Sonam Nahar (2019)
- Christian Becerra (2019)
- Tsou Yueh-Lin (2019)
- Raymond Luc (2019)
- Hinal Shah (2019)
- Eli J. Selkin (2019)
- Vincent Zhu (2019)
- Prasanthi Kothapalli (2019)
- Jacob Lepere (2019)
- Mayuresh Sudhir Nazare (2019)
- Kulvir Virk (2018)
- Wie-Hsing Li (2018)
- Kanlue Zhang (2018)
- Ahlam Almusallam (2018)
- Paul Chiou (2018)
- Rasha Alghofaili (2018)
- Raveena Shrivastava (2018)
- Diana Lin (2018)
- Sobiga Shanmugathasan (2018)
- Nada Alghofaili (2018)
- Shubhangi Vikas Shimpi (2017)
- Luis Gutierrez (2017)
- Norah Alotaibi (2017)
- Arezoo Mohandessi (2017)
- Ashwag Gashgari (2017)
- Dominick Atanasio (2017)
- Darvesh Singh (2017)
- 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

- Kyler Martinez - STARS Program Mentor (2021-present)
- Mateo Avila (2020-2021) SPIRES (Scholar Program in Research, Education & Science)
- Cassi Lam (2017-2021)
- Monica Say (2017-2019)
- Gerry Fernando Patia (2018-2019)
- Reyhan Fernando Patia (2018-2019)
- Xinyuan Wang (2018-2019)
- Mostafa Vahidi (2016-2019)
- Carlos Olea (2018-2019)
- Dimitri R. Pierre-Louis (2017-2019)
- Bao Q. Chau (2017-2018)
- Dave Luk (2017-2018)
- Aviv Miron (2016-2018)
- Ofir Miron (2016-2018)
- Xinyuan Wang (2017-2018)
- Anthony Graca (2016-2018)
- Reyhan Fernando Patia (2016-2017)
- Gerry Fernando Patia (2016-2017)
- Oleg Tolstov (2016-2017)
- Zach Kysar (2016-2017)
- Isaac Siegel (2015-2016)
- David Luong (2014 – 2016)
- Jenifer Wang (2014 – 2015)
- Vanik Gevorgyan (2015-2016)
- Lewis Alva (2015-2016)
- Ankur Oswal (2014 – 2015)

High School Student Mentor

- Tianjiao Dong, Northwood High School, Irvine, CA (2021)
- Demi Lei, Woodbridge High School, Irvine, CA (2021)
- Melissa Qian, Northwood High School, Irvine, CA (2018 – 2020)
- Patrick Gu, University High School, Irvine, CA (2018 – 2020)
- Harrison Zhou, Irvine High School, Irvine, CA (2018 – 2020)
- Clark Ren, Northwood High School, Irvine, CA (2018 – 2020)

- Andrew Shen, Arnold O. Beckman High School, Tustin, CA (2010 – present)
- Felianne Teng, Troy High School, Fullerton, CA (2018 – 2019)
- Leo Lee, Walnut High School, Walnut, CA (2018 - 2019)
- Charlie, Walnut High School, Walnut, CA (2018 – 2019)
- Jerry (Yujie) Hu, Northwood High School, Irvine, CA (2017 – 2019)
- Mingze Gao, Arnold O. Beckman High School, Tusin, CA (2017 – 2019)
- Garen Chen, Claremont High School, Claremont, CA (2017 – 2019)
- Jiahao Li, Northwood High School, Irvine, CA (2017)
- Meghan Wang, Valencia High School, Placentia, CA (2017)
- Jessica Kwok, The Webb Schools, Claremont, CA (2017)
- Jacky Li, The Baylor School, Chattanooga, TN (2017)
- Hang Wang, University High School, Irvine, CA (2016 – 2017)
- Danny Ying, Claremont High School, Claremont, CA (2016)
- Yuexin Li, Branksome Hall, Toronto, Canada (2016)
- Victor Sui (2014 – 2015)

Middle School Student Mentor

- William Ma, Jeffery Trail Middle School, Irvine, CA (2018 – present)
- Adrian Lei, Lakeside Middle School, Irvine, CA (2017 – present)
- Kevin Du, Jeffery Trail Middle School, Irvine, CA (2016)

University Service at Cal Poly Pomona

- Teaching Faculty for the NSF iCorp Cal Poly Pomona Site (2019 – present)
- Data Science & Applications Interdisciplinary Thematic Scholarly Community (2019 – present)
- Founding Faculty Advisor for the Student Innovation Lab (iLab) Faculty Advisory Board (2017 – present)
- College of Science Assessment Committee (2018 – present)
- Outstanding Advisor Review/Selection Committee for the College of Science (2015 – 2017)
- College of Science Advising Task Force Committee (2015 – 2017)
- Search Committee for Faculty Director of Student Innovation/Entrepreneurship (2014 – 2015)
- Judge for iAcademy by iLab (2017)
- Judge for Bronco Arena (2017, 2015)
- Judge for HackPoly (2017, 2015)
- Judge Bronco Startup Challenge (2015)

Computer Science Department Service at Cal Poly Pomona

- DRTP Committee, Committee Chair (2020 – present)
- Assessment Committee, Committee Chair (2018 – present)
- Search Committee (2017 – present)
- Search Committee (Math External) (2021-2022)
- Assessment Committee (2014 – present)

- Graduate Committee (2014 – present)
- Outreach and External Partnerships, Committee Chair (2016 – 2019)
- Laboratory Committee (2014 – 2016)
- Scholarship Committee (2014 – 2015)

TEACHING EXPERIENCES

Course Instructor (California State Polytechnic University, Pomona)

- CS4800 Software Engineering (Fall 2020, Fall 2019, Fall 2018, Fall 2017, Fall 2016, Summer 2016, Winter 2015, Fall 2015)
- CS4990 Mobile Application Development (Summer 2020, Spring 2020, Summer 2017, Spring 2017, Winter 2016, Spring 2015)
- CS4990 Cloud Computing and Big Data (Fall 2018, Winter 2017)
- CS4990 Entrepreneurship-STEM (E-STEM) (2018-2019, 2017-2018)
- CS2400 Data Structures and Algorithms I (Spring 2015, Summer 2016, Fall 2015)
- CS2410 Data Structures and Algorithms II (Spring 2017)
- CS2990S Exploring Computer Science: Education Practice (Spring 2020, Spring 2019, Spring 2018)
- CS5850 Software Verification and Validation (Spring 2019, Fall 2016, Winter 2015)
- CS3560 Object-Oriented Design and Programming (Fall 2020, Fall 2017, Summer 2017, Fall 2016, Summer 2015, Fall 2014)
- CS5800 Advanced Software Engineering (Fall 2018, Winter 2017, Winter 2016, Fall 2014)
- CS4630 Undergraduate Seminar (Winter 2017, Spring 2018)

Teaching Assistant (University of Alabama at Birmingham)

- 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

- **California State Science Fair**
  Los Angeles, CA (Spring 2021)

  Judge
- **California High School Programming Contest (HSPC)**
  Pomona, CA (Spring 2019)

http://www.cpp.edu/~hspc/
Founder and Chair

- **IgniteCS Programming Expo**
  Pomona, CA (Spring 2019)
  http://ignitecsexpo.org/
  Founder and Chair

- **K12 Ventures Demo Day**
  Irvine, CA (Spring 2019)
  http://k12ventures.com/
  Founder and President

- **California State Science Fair**
  Los Angeles, CA (Spring 2019)
  Judge

- **Mobile App Development using App Inventor**
  Sierra Vista Middle School, Covina, CA (Spring 2019)

  Service-Learning Course Faculty Lead

- **Python Introduction with Game Development**
  Simmons Middle School, Pomona, CA (Spring 2019)

  Service-Learning Course Faculty Lead

- **K12 Ventures Demo Day**
  Irvine, CA (Fall 2018)
  http://k12ventures.com/

  Founder and President

- **App Inventor Development**
  California Elementary School, Hacienda Heights, CA (Spring 2019)
  Faculty Lead

- **Scratch Coding with Fun**
  Temple Academy, Hacienda Heights, CA (Spring 2019)

  Faculty Lead

- **California High School Programming Contest (HSPC)**
  Pomona, CA (Spring 2018)
  http://www.cpp.edu/~hspc/
  Founder and Chair

- **IgniteCS Programming Expo**
  Pomona, CA (Spring 2018)
  http://ignitecsexpo.org/
  Founder and Chair

- **California State Science Fair**
  Los Angeles, CA (Spring 2018)

Judge

- **Robotics Programming with SRPK**
  Lassalette School, Hacienda Heights, CA (Spring 2018)
  Faculty Lead
- **Mobile App Development using App Inventor**
  Lassalette School, Hacienda Heights, CA (Spring 2018)
  Faculty Lead
- **Robotics Programming with SRPK**
  Michael G. Wickman Elementary School, Chino Hills, CA (Fall 2017)
  Faculty Lead
- **Mobile App Development using App Inventor**
  Orange Grove Middle School, Hacienda Heights, CA (Fall 2017)
  Faculty Lead
- **Robotics Programming with SRPK**
  Los Robles Elementary School, Hacienda Heights, CA (Fall 2017)
  Faculty Lead
- **Mobile App Development using App Inventor**
  Los Altos High School, Hacienda Heights, CA (Fall 2017)
  Faculty Lead
- **Mobile App Development using App Inventor**
  Rialto Unified School District, Rialto, CA (Summer 2017)
  Faculty Lead
- **Intel International Science and Engineering Fair**
  Los Angeles, CA (Spring 2017)
  Judge
- **California State Science Fair**
  Los Angeles, CA (Spring 2017)
  Judge
- **California High School Programming Contest (HSPC)**
  Pomona, CA (Spring 2017)
  http://www.cpp.edu/~hspc/
  Founder and Chair
- **Mobile App Development using App Inventor**
  Rialto Unified School District, Rialto, CA (Summer 2017)
  Faculty Lead
- **Google Ignite CS on Android Development using App Inventor**
  Orange Grove Middle School, Hacienda Heights, CA (Spring 2017)
  Faculty Advisor
- **Google Applied CS**
  Cal Poly Pomona, Pomona, CA (April-June, 2017)

Faculty Director

- **Google Ignite CS on Python Programming**
  Los Altos High School, Hacienda Heights, CA (Winter 2017)
  Faculty Advisor
- **Google Ignite CS on Android Development using App Inventor**
  Los Altos High School, Hacienda Heights, CA (Fall 2016)
  Faculty Advisor
- **Google Applied CS**
  Cal Poly Pomona, Pomona, CA (June-July, 2016)
  Faculty Director
- **Mobile App Programming Summer Camp**
  Cal Poly Pomona, Pomona, CA (July 25-28, 2016)
  Organizer and Lead Instructor
- **Google Ignite CS on Android Development using App Inventor**
  Diamond Ranch High School, Pomona, CA (April - May, 2016)
  Faculty Advisor
- **Google Applied CS**
  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

- PI. National Science Foundation (NSF), "BPC- A: Socially Responsible Computing: Promoting Latinx student retention via community engagement in early CS courses", $205,306 (2022)
- PI. Teacher-Scholar Support Program, California State Polytechnic University, Pomona (2021)
- Co-PI. Mathematics and Science Teacher Initiative (MSTI) Chancellor's Office, "Computer Science Supplementary Authorization Curriculum Development", $1,800 (2020)

- Co-PI. Mathematics and Science Teacher Initiative (MSTI) Chancellor's Office, "Computer Science workshop/Bootcamp", $3,740 (2019)
- PI. College of Science Learning Innovation Funds, California State Polytechnic University, Pomona, "Laptops for Computer Science Education", $25,000 (2019)
- PI. California State Polytechnic University, Pomona: CoS Discovery Through Research (DTR) Summer Program, $8,000 (2019)
- Co-PI. Mathematics and Science Teacher Initiative (MSTI) Chancellor's Office, "Computer Science workshop/Bootcamp", $3,740 (2018)
- Co-PI. National Science Foundation (NSF) CNS, "I-Corps Sites: Type I - Cal Poly Pomona I-Corps Site", $180,000 (2018)
- Co-PI. National Security Agency (NSA), "Cybersecurity First Principles through Internet - of - Things (IoT) Security", $80,000 (2018)
- Co-PI. California State Polytechnic University, Pomona: Special Projects for Improving the Classroom Environment (SPICE), "EngOTG: An Audio Study Material App for Engineering", $8,055 (2018)
- PI. California State Polytechnic University, Pomona: The Center for Community Engagement (CCE) Service-Learning Faculty Fellow Mini Grant, "Computer Science Education for K-12", $1,000 (2018)
- PI. California State Polytechnic University, Pomona: Special Projects for Improving the Classroom Environment (SPICE), "Quiz Hero: A Cloud-Based Quiz Tournament System for Improving In-Class Quiz Engagement", $8,848 (2017)
- PI. Google Ignite CS, "Python Programming After-School Program for High School Students", $7,600 (2016)
- 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

RESEARCH COMMERCIALIZATION & FACULTY ENTREPRENEURSHIP

- Founder, Coding Minds Inc.
- Co-founder, Ziiio Inc.
- Director of Engineering, PAR Works, $1M Seed Round from Allied Minds Inc.

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

TELEVISION / NEWSPAPER INTERVIEWS

- "Second Annual Southern California Software Engineering Symposium Builds Promising Partnerships", Donald Bren School of Information and Computer Sciences, University of California, Irvine, February 10, 2020 (https://www.ics.uci.edu/community/news/view_news?id=1704)
- "CSU Hackathons Fostering Innovation in Students", The California State University System, February 16, 2017 (https://www2.calstate.edu/csu-system/news/Pages/CSU-Hackathons-Fostering-Innovation-in-Students.aspx)
- "Brothers Teaming Up Translates into HackHarvard Win" PolyCenter, Cal Poly Pomona, January 18, 2017 (http://polycentric.cpp.edu/2017/01/brothers-teaming-up-translates-into-hackharvard-win/)
- "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

MISCELLANEOUS

- My Erdös number is 4: Erdös, Paul -> Laskar, Renu -> Sprague, Alan -> Gray, Jeff -> Me