Sandeep Kaur Kuttal

Assistant Professor
Tandy School of Computer Science,
University of Tulsa,
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Research Interests

Human-Computer Interaction, Software Engineering, Artificial Intelligence, End User Programming, Gender research, and Empirical Evaluation.

Education

2009 - 2014 Doctor of Philosophy in Computer Science
University of Nebraska – Lincoln, Nebraska
Dissertation*: Leveraging Variation Management to Support End-Users' Programming*
Advisors: Dr. Gregg Rothermel and Dr. Anita Sarma

2005 - 2007 Master of Technology in Computer Science and Engineering (**with distinction**)
Punjab Technical University, Punjab, India
Thesis: Partitioning Framework for Program Testing
Advisor: Dr. Gurpal Singh

1997 - 2001 Bachelor of Technology in Computer Science and Engineering
Punjab Technical University, Punjab, India
Thesis: A DSA Based Secure File Transfer System

Summer 2013 Design Action Lab
Stanford University
Course: Design Thinking

Professional Experience

2015 - Present Assistant Professor
Tandy School of Computer Science
University of Tulsa, Tulsa, OK

Summer 2019 Visiting Faculty
IBM Research
TJ Watson Research Lab, Yorktown Heights, NY

2014 - 2015 Post-Doctoral Scholar
School of Electrical Engineering and Computer Science
Oregon State University, Corvallis, OR (In collaboration with University of Nebraska-Lincoln)
Advisor: Dr. Margaret Burnett

2009 - 2014 Research Assistant
Computer Science and Engineering
University of Nebraska – Lincoln, Nebraska

2010 - 2013 Teaching Assistant
Computer Science and Engineering
University of Nebraska – Lincoln, Nebraska

2007 - 2009 Senior Lecturer
Computer Science and Engineering

Baba Banda Singh Bahadur Engineering College, Punjab, India

2001 - 2007 Lecturer
Computer Science and Engineering
Baba Banda Singh Bahadur Engineering College, Punjab, India

Summer 2006 Instructor
Cognizant Technology Solutions, India

Jan – Jun 2000 Intern
Regional Computer Center, Chandigarh, India

Refereed Journal Publications

J.10. P. Robe, **S. K. Kuttal** "*Designing PairBuddy – A Conversational Agent for Pair Programming*" in ACM Transactions of Human Computer Interactions (TOCHI), 2021.

J.9. **S. K. Kuttal**, X. Chen, Z. Xang, S.Balali, A. Sarma "*Visual Resume: Exploring Developers' Online Contributions for Hiring*" in Information and Software Technology (IST), 2021.

J.8. **S. K. Kuttal**, A. Ghosh, "*Source Code Comments: Overlooked in the Realm of Code Clone Detection*" International Journal of Computer Science and Information Security (IJCSIS), November 2020, issue (Vol. 18 No. 11).

J.7. **S. K. Kuttal,** S. Y. Kim, C. Martos, A. Bejarano, "*How End-User Programmers Forage in Online Repositories? An Information Foraging Perespective*," Journal of Computer Languages (COLA), 2020 (in press).

J.6. **S. K. Kuttal**, M. M. Sun, A. Ghosh, R. Sharma, "*Birds of a Feather Flock Together? A Study of Developers' Flocking and Migration Behavior in GitHub and Stack Overflow,"* International Journal of Computer Science and Information Security (IJCSIS), June 2020 issue (Vol. 18 No. 6).

J.5. **S. K. Kuttal**, Y. Bai, E. Scott, R. Sharma, "*Tug of Perspectives: Mobile App Users vs Developers,"* International Journal of Computer Science and Information Security (IJCSIS), June 2020 issue (Vol. 18 No. 6).

J.4. **S. K. Kuttal**, M. M. Burnett, A. Sarma, G. Rothermel, I. Koeppe, B. Shepherd, "*How End-User Programmers Debug Visual Web-Based Programs: An Information Foraging Theory Perspective*," Journal of Visual Languages and Computing (JVLC), 2019.

J.3 **S. K. Kuttal**, A. Sarma, G. Rothermel, Z. Wang, "*What Happened to My Application? Helping End Users Comprehend Evolution through Variation Management*," in Information and Software Technology (IST), Volume 103, Pages 55-74, November 2018. (Impact Factor: 1.569)

J.2 W. Jernigan, A. Horvath, T. Cuilty, M. Burnett, M. Lee, **S. K. Kuttal**, A. Peters, I. Kwan, F. Bahmani, A. Ko, "*General principles for a Generalized Idea Garden*," in Journal of Visual Languages and Computing (JVLC), Volume 39, Pages 51-65, April 2017. (Impact Factor: 0.634)

J.1 **S. K. Kuttal**, A. Sarma, and G. Rothermel, "*On the Benefits of Providing Versioning Support for End-Users: An Empirical Study*," in ACM Transactions of Human Computer Interactions (TOCHI), Volume 21(2), pages 9:1 - 9:43, February 2014. (Impact Factor: 1.194)

Rigorously Reviewed Conference Publications

C.19 **S. K. Kuttal**, B. Ong, K. Kwasny, P. Robe, "*Trade-offs for Substituting a Human with an Agent in a Pair Programming Context: The Good, the Bad, and the Ugly*" in Proceedings of the conference on Human Factors in Computing – CHI 2021.

C.18 **S. K. Kuttal,** Abim Sedhain, Jacob AuBuchon, "*Designing a Gender-Inclusive Conversational Agent for Pair Programming: An Empirical Investigation*" in Proceedings of the International conference on Human-Computer Interactions -HCII 2021.

C.17 **S. K. Kuttal**, J. Myers, S. Gurka, D. Magar, D. Piorkowski, R. Bellamy *"Towards Designing Conversational Agents for Pair Programming: Accounting for Creativity Strategies and Conversational Styles"* in Proceedings of Visual Languages and Human-Centric Computing (VL/HCC), 2020 (acceptance rate: 30%).

C.16 P. Robe, **S. K. Kuttal**, Y. Zhang, R. Bellamy, *"Can Machine Learning Facilitate Remote Pair Programming? Challenges, Insights & Implications"* in Proceedings of Visual Languages and Human-Centric Computing (VL/HCC), 2020 (acceptance rate: 30%).

C.15 **S. K. Kuttal**, K. Gerstner, A. Bejarano, "*Remote Pair Programming in Online CS Education: Investigating through a Gender Lens*", in Proceedings of Visual Languages and Human-Centric Computing (VL/HCC), 2019 (acceptance rate: 30%).

C.14 C. Zhou**, S. K. Kuttal**, I. Ahmed, "*What Makes a Good Developer? An Empirical Study of Developers' Technical and Social Competencies*", submitted in Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), 2018

C.13 A. Ghosh, **S. K. Kuttal,** "*Semantic clone detection: Can source code comments help*?", submitted in Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), 2018

C.12 S. S. Ragavan, B. Pandya, D. Piorkowski, C. Hill, **S. K. Kuttal**, A. Sarma, M. Burnett, "*PFIS-V: Modeling Foraging Behavior in the Presence of Variants*", in Proceedings of the conference on Human Factors in Computing – CHI, Denver, USA, pages 6232-6244, May 2017. (acceptance rate: 18%)

C.11 C. Martos, S. Y. Kim, **S. K. Kuttal**, "*Reuse of Variants in Online Repositories: Foraging for the Fittest*" in Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing - VL/HCC, Cambridge, UK, pages 124-128, September 2016. (acceptance rate: 30%)

C.10 S. S. Ragavan, **S. K. Kuttal**, C. Hill, A. Sarma, D. J. Piorkowski, M. M. Burnett, "*Foraging among an Overabundance of Similar Variants*", in Proceedings of the conference on Human Factors in Computing – CHI, San Jose, USA, pages - 3509-3521, May 2015. (acceptance rate: 18%) **(Best Paper award)**

C.9 A. Sarma, X. Chen, **S. K. Kuttal**, L. Dabbish, Z. Wang, ***"****Hiring in the Global Stage: Profiles of Online Contributions",* International Conference of Global Software Engineering, 2016 (acceptance rate: 30%) **(Best Paper award)**

C.8 W. Jernigan, A. Horvath, T. Cuilty, M. Burnett, M. Lee, **S. K. Kuttal**, A. Peters, I. Kwan, F. Bahmani, A. Ko, "*Principles of Idea Garden Hints for End-User Programmers*", in Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), Georgia, At, USA, pages, October 2015. (acceptance rate: 30%)

C.7 **S. K. Kuttal**, A. Sarma, and G. Rothermel, "*Predator Behavior in the Wild Web World of Bugs: An Information Foraging Theory Perspective*", in Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), San Jose, CA, USA, pages 59 - 66, September 2013. (acceptance rate: 30%)

C.6 **S. K. Kuttal**, A. Sarma, and G. Rothermel, "*Debugging Support for End-User Mashup Programming*", in Proceedings of the conference on Human Factors in Computing – CHI, Paris, France, pages 1609 - 1618, April 2013. (acceptance rate: 18%)

C.5 **S. K. Kuttal**, A. Sarma, and G. Rothermel, "*History Repeats Itself More Easily When You Log It: Versioning for Mashups*", in Proceedings of the IEEE Symposium on Visual Languages and

Human-Centric Computing (VL/HCC), Pittsburgh, PA, USA, pages 69 - 72, September 2011. (acceptance rate: 34%)

C.4 **S. K. Kuttal**, A. Sarma, A. Swearngin, and G. Rothermel. "*Versioning for Mashups - An Exploratory Study*", in Proceedings of the International Symposium on End-User Development (IS-EUD), Torre Canne (Brindisi), Italy, pages 25 - 41, June 2011. (acceptance rate: 32%)

C.3 **S. K. Kuttal**, *Leveraging Variation Management to Support End-User Programming*, PhD Dissertation, Department of Computer Science and Engineering, University of Nebraska - Lincoln, 2014.

C.2 **S. K. Kuttal**, A. Sarma, and G. Rothermel, "*On the Benefits of Providing Versioning Support for End-Users: An Empirical Study*", Technical Report TR-UNL-CSE-2012-0008, Dept. of Computer Science, U. Nebraska 2012, (available at http://cse-apps.unl.edu/facdb/publications/TR-UNL-CSE-2012-0008.pdf).

C.1 **S. K. Kuttal** "*Variation Support for End Users*", in Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), Graduate Student Consortium, San Jose, CA, USA, pages 183 - 184, September 2013.

Keynote Speaker

- "*Testing software: Challenges and hardships of non-traditional testers*," International Workshop on User Interface Test Automation and Testing Techniques for Event Based Software with ICST 2020, Porto, Portugal.

Grants

- "Supporting Information Foraging by Utilizing Agents' Collective Foraging Behavior" Young Investigators Research Program (YIP), Air Force Office of Scientific Research (AFOSR), 2021, PI.
- "NSF Student and Early-Career Faculty Travel and Registration Grant for IEEE International Conference on Software Engineering 2018", 2018, NSF, SHF, PI
- "Supporting Information Foraging by Utilizing Agents' Collective Foraging Behavior", Faculty Development Summer Fellowship, 2020, PI.
- "Developing Intelligent Pair-Programming Agents to Facilitate Programming" Shark Tank Kick-Start Grant, 2019, PI
- "Pair-Buddy: Prototype of intelligent agents to broaden accessibility of programming", Faculty Development Summer Fellowship, 2018, PI.
- "Improving API Learning and Exploration", Faculty Development Summer Fellowship, 2017, PI.
- "Human Centered Online Repositories to Support Opportunistic Reuse", Faculty Development Summer Fellowship, 2016, PI.

Poster Presentations

"*Gender Bias in Global Software Development: Using a "Gender Lens*"", at International Conference on Software Engineering, ICSE, Montreal, Canada 2019.

"*History Repeats Itself More Easily When You Log It: Versioning for Mashups*", at Visual Languages and Human-Centric Computing (VL/HCC), PA, USA, September 2011.

"*Variation Support for End Users*", at Visual Languages and Human-Centric Computing (VL/HCC), CA, USA, September 2013.

"*Variation Support for End Users*", at Graduate Research Expo, Portland, OR, USA, March 2015.

Invited Presentations

"Characterizing brain neural response in the same and mixed genders pairs" Invited to Laureate Institute for Brain Research, December 2020.

"Towards designing conversational Agents for Pair Programming," Invited to Human in the loop lab at TJ Watson Research Lab, Yorktown Heights, NY, June 2019.

"Inspiring a future engineer" Invited to Tulsa Regional STEM Alliance (TRSA) Camps, June 2020. Link: https://sites.google.com/tulsastem.org/summer-engineering-camp/day-3#h.8idfssu1uvjm

"Career paths for Professors," Invited to Whitman Elementary School (with 92% African Americans), May 2018.

"Career paths for engineers," Invited to STEM alliance classes at Jenks High School, September 2017, September 2018, April 2019.

"Career path as a women software engineer," Invited to AVID student classes at Jenks Middle School, October 2017.

"*On the Benefits of Providing Versioning Support for End-Users: An Empirical Study*," Invited to ACM Computer and Human Interactions (CHI), April 2015.

"*Software Engineering for Humans*," invited to University of Memphis, TN, 2015.

Reviewer

- ACM Computer Human Interaction (CHI), 2015, 2016, 2017, 2018, 2019, 2020
- Mitacs Accelerate research 2020.
- International Conference on Software Engineering (ICSE), 2018, 2019
- IEEE Cooperative and Human Aspects of Software Engineering (CHASE), 2016, 2017, 2018, 2019
- IEEE Visual Languages and Human-Centric Computing (VL/HCC), 2016, 2017, 2018, 2019, 2020, 2021
- IEEE Humanized Computing and Communication (HCC) 2019.
- IEEE Transactions on Software Engineering (TSE), 2014, 2016
- ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW), 2016, 2018, 2019
- Peer Journal (PeerJ), 2017
- IIS NSF panel, 2017
- CCF NSF panel, 2017
- ACM Intelligent User Interfaces (iUI), 2015, 2016, 2019
- Journal of Systems and Software (JSS) 2019.
- Journal of Information & Software Technology (IST) 2019
- Gender Equality in Software Engineering (Gender@ICSE), 2019.
- International Symposium on End-User Development (IS-EUD), 2013.
- New Ideas and Emerging Results (NIER) track at ICSE, 2019.

Steering Committee Vice Chair

- IEEE Visual Languages and Human-Centric Computing (VL/HCC), 2020

Steering Committee Member

- IEEE Visual Languages and Human-Centric Computing (VL/HCC), 2019, 2020

Program committee member

- IEEE Cooperative and Human Aspects of Software Engineering (CHASE), 2016, 2017, 2018, 2019
- ACM/IEEE International Conference on Program Comprehension (ICPC), 2021
- IEEE Doctoral Consortium at International Conference on Software Maintenance and Evolution (ICSME), 2020
- ACM Student Research Competition, SRC at International Conference on Software Engineering (ICSE), 2020
- IEEE Visual Languages and Human-Centric Computing (VL/HCC), 2016, 2017, 2018, 2019, 2020
- Symposium on the Foundations of Software Engineering (FSE), 2019

- ACM Intelligent User Interfaces (iUI)- 2015, 2016, 2019
- ACM/IEEE International Conference on Software Engineering (ICSE)- 2017, 2018, 2019
- IEEE Humanized Computing and Communication (HCC), 2019
- New Ideas and Emerging Results (NIER), 2018, 2019
- ACS/IEEE International Conference on Computer Systems and Applications (AICCSA), 2018

Session Chair

- ACM/IEEE International Conference on Software Engineering (ICSE), 2019
- IEEE International Conference on Software Maintenance and Evolution (ICSME), 2020

Organizer

Doctoral Consortium

- IEEE Visual Languages and Human-Centric Computing (VL/HCC), 2021

Journal-First Chair

- IEEE Visual Languages and Human-Centric Computing (VL/HCC), 2020

ACM Student Research Competition Chair

- Symposium on the Foundations of Software Engineering (FSE), 2019

Conference Finance Chair

- IEEE Visual Languages and Human-Centric Computing (VL/HCC), 2019

Program Board member

- International Conference on Artificial Intelligence in HCI (HCII), 2020
- International Conference on Artificial Intelligence in HCI (HCII), 2021

Poster Chair

- IEEE Visual Languages and Human-Centric Computing (VL/HCC), 2018

NSF Scholarship Chair

- International Conference on Software Engineering (ICSE), 2018

Travel Grants Chair

- International Conference on Software Engineering (ICSE), 2020

Showpiece and Poster Chair

- IEEE Visual Languages and Human-Centric Computing (VL/HCC), 2017, 2019

Recent Courses Taught

University of Tulsa – Tulsa

Fall 2015	CS-5863-06: User Centered Design and Research
Spring 2016	CS-4863-04/6863-05: Empirical Software Engineering
Spring 2016	CS-4053-01/6863-04: Interaction Design
Fall 2016	CS-7863: Advanced Software Engineering
Fall 2016	CS-4503: Software Engineering Projects I
Spring 2017	CS-2003-01: Fundamentals of Algorithm and Computer Applications
Spring 2017	CS-4053-01/6863-04: Interaction Design
Summer 2017	CS-1003: Code@TU
Fall 2017	CS-4503: Software Engineering Projects I
Spring 2018	CS-2003-01: Fundamentals of Algorithm and Computer Applications
Spring 2018	CS-4053-01/6863-04: Interaction Design
Fall 2018	CS-4503: Software Engineering Projects I
Spring 2019	CS-2003-01: Fundamentals of Algorithm and Computer Applications
Spring 2019	CS-4053-01/6863-04: Interaction Design
Fall 2019	CS-4503: Software Engineering Projects I
Fall 2019	CS-5863-06: User Centered Design and Research
Spring 2020	CS-4053-01/6863-04: Interaction Design
Spring 2020	CS-4513: Software Engineering Projects II
Fall 2020	CS-4053-01/6863-04: Interaction Design
Fall 2020	CS-4503: Software Engineering Projects I
Spring 2021	CS-4513: Software Engineering Projects II

Spring 2021 CS-5863-06: User Centered Design and Research

Other Courses Taught

University of Nebraska – Lincoln

Undergraduate	CSCE 155N: MATLAB Programming (Lab)

Baba Banda Singh Bahadur Engineering College, India

Undergraduate	Software Engineering Relational Database Systems Formal Languages and Automata Theory Computer Networks ATM Networks Digital Image Processing Programming Languages Operating System Digital Logic and Circuit Design Computer Graphics Fundamentals of Computer and Information Technology
Graduate	Language Processors Compiler Design

Cognizant Technology Solutions, India

Employees	Relational Database Networking C Programming

Service

- Vice President of Outreach, Society of Women Engineers (SWE), Tulsa region, 2019, 2020, 2021.
- Introduce a Girl to Engineering Day 2021.
- Advisor for the Society of Women Engineers (SWE) at the University of Tulsa 2016, 2017, 2018 and 2019, 2020.
- Advisor for the University of Tulsa Young Professionals (TUYP) at the University of Tulsa 2016, 2017, 2018, 2019.
- Advisor for the National Center for Women & Information Technology (NCWIT) at the University of Tulsa 2017, 2018, 2019, 2020.
- Judge for 21st annual Research Colloquium at University of Tulsa 2018, 2019.
- Judge for Oklahoma Young Entrepreneur Award 2017 and 2018
- Volunteer for Grace Hopper Celebration of women in computing 2013
- Student volunteer for ACM Computer and Human Interactions 2013
- Judge for Regional ACM programming contest in 2010 to 2013
- Chair of Academics Improvement Committee at BBSBEC, India, 2001 to 2008. The responsibilities included overseeing the quality of education imparted to students.
- Member of the team which was responsible for implementation of ISO 9001-2000 and National Board of Accreditation (NBA) in the Department of CSE at BBSBEC.
- Coordinator of workshop on office automation at BBSBEC, India 2007
- Member of organizing committee for national level conference sponsored by AICTE and ISTE 2007
- Coordinator of Human Bodys' Awareness Club at BBSBEC, India 2003 to 2008. Responsible for organizing yoga, camps and teaches about Reiki.
- Member of sports committee at BBSBEC, India 2001 to 2008. The committee was responsible for organizing intra- and inter- college Sports events.
- Member of college cultural committee at BBSBEC, India 2005 to 2008. Responsible for organizing regional and Inter regional youth festivals.

- Co-coordinator of National Service Scheme (NSS) at BBSBEC, India 2001 to 2008. NSS is responsible for organizing activities like tree plantation, Cleanliness drives, Blood donation camps, marking special days and ensuring celebrations in the college.
- Team manager for the PTU yoga team for north zone inter university tournament held at GNDU Amritsar in 2004.

Outreach in Community

- Vice President of Outreach, Society of Women Engineers (SWE), Tulsa, 2019, 2020.
- Volunteer at Neighbors along the line – STEM Summit- at Tulsa, 2018.
- Mentor at Oklahoma Women in Tech (OKWIT) 2017, 2018, 2019, 2020.
- Presentation on career in STEM at local elementary, middle and high school, 2017, 2018, 2019.
- Judge and Guest to honor "Innovation award" to Capstone Software Projects at Tulsa School of Arts and Science, 2019.

Honors

- Mentoring Excellence Nominee by The University of Tulsa Women's and Gender Studies Program's Linda J. Lacey Award for Mentoring Excellence 2018.
- Excellent reviewer recognition at CHI 2017.
- Spot light on me by CSE department at UNL: http://newsroom.unl.edu/announce/cse/1761/10125
- Awarded a one-day workshop on CAREER Proposal Writing in 2016 hosted by the NSF Directorate for Computer & Information Science & Engineering (CISE). This workshop introduces junior CAREER-eligible faculty to the NSF CAREER program and helps them to prepare their CAREER proposals to target CISE programs. Only 50 junior faculties from HBCU/MEI institutions were offered this travel support.
- NSF ICSE 2016 travel support, for attending New Faculty Symposium. The support was based on merit, potential to contribute to research in software engineering in the U.S.
- Faculty Development Summer Fellowship in 2016 from University of Tulsa to support her research project "Human Centered Variation Management Support for Opportunistic Reuse in online repositories".
- Grant recipient of Building Recruiting and Inclusion for Diversity (BRAID) funding to attend Grace Hopper Conference 2014
- First place (YOU IN UX Ultimate UX Cocktail Winner) for design at Global UX Career Summit 2014
- Grant recipient to attend Grad Consortium for Visual Languages and Human-Centric Computing 2013
- Grant recipient of Committee on the Status of Women in Computing Research (CRA-W) to attend Grad Cohort Workshop in 2009 and 2010
- Awarded the certification in Oracle 9i DBA Certified Associate and Oracle 9i DBA Certified Professional. Completed all four modules namely: Introduction to 9i: SQL with 93%, DBA Fundamental 1 with 96%, DBA fundamental II with 98 %, and Performance Tuning with 84%

Professional Memberships

- Member of *End-Users Shaping Effective Software Consortium* (EUSES). EUSES is a collaboration of researchers at Oregon State University, Carnegie Mellon University, Drexel University, Penn State University, University of Nebraska, Cambridge University, University of Washington, City University of London, IBM, National Instruments, University of Memphis and Saturday Academy
- Affiliated faculty for a National Science Foundation project *Variations to support exploratory programming.* The research group consists of four universities namely Carnegie Mellon, Oregon State University, University of Nebraska-Lincoln, and University of Washington.
- Member of *Systers*. Systers is a forum for all women involved in the technical aspects of computing. The community has over 6,000 members from at least 60 countries around the world.
- Member of *Institute of Electrical and Electronics* (IEEE). IEEE is a Professional association and was formed in 1963 from the amalgamation of the American Institute of Electrical Engineers and the Institute of Radio Engineers. Today, it is the world's largest association of technical professionals

with more than 400,000 members in chapters around the world.

- Member of *Association for Computing Machinery* (ACM). ACM is an international learned society for computing. It was founded in 1947 and is the world's largest scientific and educational computing society. It is a not-for-profit professional membership group.
- Lead advisor for the National Center for Women & Information Technology (NCWIT) at the University of Tulsa. is a national non-profit organization that works to increase the meaningful participation of girls and women in computing.
- Lead advisor for University of Tulsa Young Professionals (TUYP). TUYP will facilitate interaction between our students and local professionals, industries, alums, and other stakeholders in our programs.
- Lead advisor for *Society of Women Engineers* (SWE) at the University of Tulsa. SWE founded in 1950, is a not-for-profit educational and service organization in the United States. SWE a driving force that works to establish engineering as a highly desirable career aspiration for women. SWE has over 33,000 members in nearly 100 professional sections and 300 student sections throughout the United States.

Current Students Supervised

- Peter Robe (Ph.D 2022)
- Abim Sedhani (Ph.D. 2024)
- Jake Aubuchon (Independent study)
- Caroline Lott (Independent study)
- Danny Tapp (Independent study)
- Van Nguyen (Independent study)

Past Students Supervised

- Bali Ong (TURC)
- Katherine Kwasny (TURC)
- Jarrow Myers (TURC)
- Sam Gurka (TURC)
- Yingze Chen (TURC)
- Kevin Gerestner (Ugrad)
- Alexandra Bejarano (Ugrad 2020, PhD Colorado School of Mines)
- Akash Ghosh (MS 2019)
- Sami Abuhaimed (Independent study)
- Yiting Bai (Ugrad, Independent study)
- David Magar (Ugrad)
- Michael Sun (B. S 2018, doing M.S. UCI-Irvine)
- Brooke Shepherd (Ugrad) – Also supported by TURC
- Jiayi Lu (Ugrad)
- Philip Gibson (Ugrad)
- Cheng Zhou (Ugrad 2018) – Also supported by TURC
- Se Yeon Kim (Ugrad 2018, Consumer Affairs) – Also supported by TURC
- Carlos Martos (B.S. 2017)
- Steven Alfonso Hernandez (B.S. 2016)
- Cao Huynh (Ugrad)
- Vikas Dhawan (M.Tech 2008)
- RaveenPal Kaur (M.Tech 2008)

Dissertation Committee member

- Saeid Samadidana (Ph.D 2019)
- Osman Yusel (Ph.D 2017)
- Zenefa Rahaman (Ph.D 2018)

I mentored the following students with my Ph.D. advisors

- Zhendong Wang (Ugrad)
- David Montz (Ugrad)
- Ian Koeppe (Ugrad)
- Jennifer Hamblin (Ugrad)
- Brandan Barber (Ugrad)

I mentored following students along with my Post-Doctoral Mentor

- Sruti Srinivasa Ragavan (Ph.D.)
- William Jernigan (M.S.)
- Charles G. Dwayne Hill (M.S.)
- Laxmi Ganesan (M.S.)
- Amber Mogene Horvath (Ugrad)

Grants (Accepted/Rejected/Pending)

2015

1. Human Centered Online Repositories to Support Opportunistic Reuse, Faculty development summer fellowship at TU, individual, (accepted)
2. Changing the Perspective of the Curriculum for Introducing Programming, Microsoft corporation, in collaboration with Rose Gamble at TU (rejected)
3. Human Centered Variation Management Support for Opportunistic Reuse in online repositories NSF CISE CRII, Individual (rejected)
4. "Understanding the Search Behavior of Programmers" for Ralph E. Powe Jr. Faculty award offered through TU's association with the Oak Ridge Associated Universities (ORAU) (rejected)

2016

1. "Improving API learning" Faculty development summer fellowship at TU, individual, (accepted)
2. "Human Centered Online Repositories to Support Opportunistic Reuse" NSF-CRII, individual (rejected)
3. "Improving API learning and exploration", NSF, SHF, Medium in collaboration with faculty at CMU and University of Memphis (rejected)
4. "Understanding the Search Behavior of Programmers" for Ralph E. Powe Jr. Faculty award offered through TU's association with the Oak Ridge Associated Universities (ORAU) (rejected)
5. "Modeling Phishing Victimization and Tailoring Preventative Training using Structural Trust Indicators", small, NSF SaTC TTP in collaboration with faculty at TU and University of Nebraska at Omaha (rejected)

2017

1. "Pair-Buddy: Prototype of intelligent agents to broaden accessibility of programming", Faculty development summer fellowship at TU, Individual (accepted)
2. "Improving API Learning using worked examples", NSF, SHF, small in collaboration with University of Memphis (rejected)
3. "Pair-Buddy: Prototype of intelligent agents to broaden accessibility of programming", NSF EPSCoR Research Fellowship (RII Track-4), host IBM TJ Watson (rejected)
4. "Modeling Phishing Victimization using Biomarkers of Cyber Trust and Tailored Training", NSF, IIS, CHS, Small, collaboration with faculty at TU and University of Nebraska at Omaha (rejected)

2018

1. "NSF Student and Early-Career Faculty Travel and Registration Grant for IEEE International Conference on Software Engineering 2018", NSF, SHF, PI (accepted)
2. "Developing Intelligent Pair-Programming Agents to Facilitate Programming" Shark Tank Kick-Start Grant, PI (pending)
3. "Developing Intelligent Pair-Programming Agents to Facilitate Programming" NSF CAREER grant, PI (pending)
4. "Conducting Wizard-of-Oz studies for Efficient Programmer-Agent Pairing" Faculty development summer fellowship at TU, individual (Pending)

2019

1. Collaborative Research: Remote Pair Programming in Online CS Education: Leaving women behind? NSF (Rejected)
2. CAREER: Gender-Inclusive Conversational Agents to Facilitate Creative Pair Programming, NSF (Rejected)
3. Gender Bias in Global Software Development: Using a "Gender Lens", Google Faculty Research Grant (Pending)
4. Supporting Information Foraging by Utilizing Agents' Collective Foraging Behavior, DEPSCoR, Department of the Air Force Office (White Paper-Accepted)
5. Collaborative Research: Remote Pair Programming in Online CS Education: Leaving women behind? NSF
6. "Supporting Information Foraging by Utilizing Agents' Collective Foraging Behavior", Faculty Development Summer Fellowship (Accepted)

2020

1. Supporting Information Foraging by Utilizing Agents' Collective Foraging Behavior, DEPSCoR, Department of the Air Force Office
2. CAREER: Conversational Agents to Facilitate Creative Pair Programming, NSF