

Sandeep Kaur Kuttal

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Research Interests

Software Engineering, Human Computer Interaction, End-User Programming, 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 Masters 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
- 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
Instructor

Summer 2006 Cognizant Technology Solutions, India
Jan – Jun 2000 Intern
 Regional Computer Center, Chandigarh, India

Refereed Journal Publications

- J.2 W. Jernigan, A. Horvath, T. Cuiilty, M. Burnett, M. Lee, **S.K. Kuttal**, A. Peters, I. Kwan, F. Bahmani, A. Ko, “*General principles for a Generalized Idea Garder*”, in Journal of Visual Languages and Computing (JVLC), 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 Proceedings of the 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.9 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 Computer and Human Interactions – CHI, Denver, USA, May 2017. (accepted)
- C.8 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.7 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 Computer and Human Interactions - CHI, San Jose, USA, pages - 3509-3521, May 2016. (acceptance rate: 18%) (**Best Paper award**)
- C.6 X. Chen, **S. K. Kuttal**, L. Dabbish, Z. Wang, A. Sarma “*Visual Resume: Aggregating Developer Profiles from Online Contributions*”, International Conference of Global Software Engineering, 2016 (**Best Paper award**)
- C.5 W. Jernigan, A. Horvath, T. Cuiilty, 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.
- C.4 **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.3 **S. K. Kuttal**, A. Sarma, and G. Rothermel, “*Debugging Support for End-User Mashup Programming*”, in Proceedings of ACM Computer and Human Interactions (CHI), Paris, France, pages 1609 - 1618, April 2013. (acceptance rate: 18%)
- C.2 **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.1 **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%)

Other Selected Publications

- O.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.
- O.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>).
- O.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.

Invited Presentation

“*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.

Courses

University of Tulsa – Tulsa

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|-------------|--|
| 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 |

Reviewer

- ACM Computer Human Interaction (CHI)
- IEEE Transactions on Software Engineering (TSE)
- International Symposium on End-User Development (IS-EUD)
- ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)
- Peer Journal (PeerJ)

Program committee member

- IEEE Cooperative and Human Aspects of Software Engineering (CHASE)
- IEEE Visual Languages and Human-Centric Computing (VL/HCC)
- ACM Intelligent User Interfaces (iUI)

Services

- Advisor for the Society of Women Engineers (SWE) at the University of Tulsa.
- 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 Baba Banda Singh Bahadur Engineering College (BBSBEC), India, 2001 to 2008
- 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
- Member of sports committee at BBSBEC, India 2001 to 2008
- Member of college cultural committee at BBSBEC, India 2005 to 2008
- Co-coordinator of National Service Scheme at BBSBEC, India 2001 to 2008