SANJAY KAIRAM

RESEARCH / DATA SCIENTIST   SKAIRAM@CS.STANFORD.EDU
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PROFESSIONAL SUMMARY

Social Computing, Statistical Modeling, Information Visualization, Data Mining, HCI

Research and Data Scientist with deep academic and industry experience (8+ years) applying a unique mix of quantitative and qualitative methods to analysis of user behavior in a variety of social and content-sharing platforms. Passionate advocate for user-centered product design. Strong communicator with extensive experience translating complex findings for technical and non-technical academic and industry audiences. My dissertation research explored challenges and practices around *selective sharing*, along with algorithmic techniques to help users scale their self-disclosure practices to large collections of multimedia content.

EDUCATION

2016   **STANFORD UNIVERSITY**, STANFORD, CA
PhD, Computer Science (Advisor: Jeffrey Heer)
Dissertation: Understanding and Supporting Selective Sharing

2006   **STANFORD UNIVERSITY**, STANFORD, CA
Master of Arts, Philosophy (Advisor: Marc Pauly)

2006   **STANFORD UNIVERSITY**, STANFORD, CA
Bachelor of Science, Mathematics [Minor in Symbolic Systems]

INDUSTRY EXPERIENCE

2016
- PRESENT   **TWITCH / AMAZON**, SAN FRANCISCO, CA
Data Scientist, Discovery Products
- Data Science lead for all live video discovery products (e.g. Pulse, Browse, and Recommendations).
- Led key research projects driving product strategy and design for Pulse, a newsfeed currently serving personalized recommendations for live and recorded video content to millions of Twitch viewers.
- Currently managing a cross-functional team of 5 researchers conducting segmentation of existing Twitch viewer base according to attitudinal, behavioral, and topical-interest differences. This work will serve as the basis for the 2018 company-wide marketing strategy.
- Worked with CEO and individual product managers across business units to develop a unified metrics and reporting structure for summarizing product efforts. Developed a causal inference model for estimating impact of individual product efforts on sitewide viewer engagement.
- Supported development of 2018 Twitch strategic plans through time-series modeling to forecast growth in viewer engagement across regions and content types based on historical data.

RESEARCH EXPERIENCE

2010
- 2016   **STANFORD UNIVERSITY**, STANFORD, CA
Research Assistant, Human-Computer Interaction Group

2015
- 2016   **YAHOO! LABS,** SAN FRANCISCO, CA
Academic Contractor, HCI Research Group

2015   **YAHOO! LABS,** SAN FRANCISCO, CA
Research Intern, HCI Research Group, with David Ayman Shamma and Jofish Kaye

2013   **MICROSOFT RESEARCH (MSR)**, REDMOND, WA
Research Intern, with Nathalie Riche

      FACEBOOK, MENLO PARK, CA
Research Intern, Data Science, with Daniel Merl

2012   **MICROSOFT RESEARCH (MSR)**, REDMOND, WA
Research Intern, with Susan Dumais, Meredith Ringel Morris, & Jaime Teevan

2011   **GOOGLE, INC.**, MOUNTAIN VIEW, CA
UX Research Intern, with Michael J. Brzozowski, Ed H. Chi, & David Huffaker

2008   **PALO ALTO RESEARCH CENTER (PARC)**, PALO ALTO, CA
-2010   *Research Assistant*, with Peter Pirolli, Ed H. Chi, & Gregorio Convertino

2004   **STANFORD UNIVERSITY,** STANFORD, CA
Research Assistant, STAR (Space, Time, & Action Research) Lab, with Barbara Tversky

REFEREED PUBLICATIONS

Conference Papers

2016   **Kairam, S.**, Kaye, J., Guerra-Gómez, J.A., & Shamma, D.A. (2016): Snap Decisions? How Users, Content, and Aesthetics Interact to Shape Photo Sharing Behaviors. *CHI 2016: ACM Conference on Human Factors in Computing Systems.* [23% acceptance rate].

      Guerra-Gómez, J.A., Boulanger, C., **Kairam, S.**, & Shamma, D.A. (2016): Identifying Best Practices for Visualizing Photo Statistics and Galleries Using Treemaps. *AVI 2016: ACM Conference on Advanced Visual Interfaces.* [26% acceptance]**.**

      Kairam, S. and Heer, J. (2016): Parting Crowds: Characterizing Divergent Interpretations in Crowdsourced Annotation Tasks. *CSCW 2016: ACM Conference on Computer-Supported Cooperative Work and Social Computing.* [25% acceptance].

2015   **Kairam, S.**, Riche, N.H., Drucker, S.M., Fernandez, R., & Heer, J. (2015): Refinery: Visual Exploration of Large, Heterogeneous Networks through Associative Browsing. *EuroVis 2015: Eurographics Conference on Visualization.* [32% acceptance]

2013   **Kairam, S.**, Morris M.R., Teevan, J., Liebling, D., & Dumais, S. (2013): Towards Supporting Search over Trending Events with Social Media. *ICWSM 2013: AAAI Conference on Weblogs and Social Media.* [21% acceptance]
Best Paper Honorable Mention

2012   **Kairam, S.**, MacLean, D., Savva, M., & Heer, J. (2012): GraphPrism: Compact Visualization of Network Structure. *AVI 2012: ACM Conference on Advanced Visual Interfaces.* [28% acceptance]

      Kairam, S., Brzozowski, M., Huffaker, D., & Chi, E.H. (2012): Talking in Circles: Selective Sharing in Google+. *CHI 2012: ACM Conference on Human Factors in Computing Systems.* [23% acceptance]

      Kairam, S., Wang, D.J., & Leskovec, J. (2012): The Life and Death of Online Groups: Predicting Group Growth and Longevity. *WSDM 2012: ACM Conference on Web Search and Data Mining.* [21% acceptance]

2010   Bernstein, M.S., Suh, B., Hong, L., Chen, J., **Kairam, S.**, & Chi, E.H. (2010): Eddi: Interactive Topic-Based Browsing of Social Status Streams. *UIST 2010: ACM Symposium on User Interface Software and Technology.* [18% acceptance]

Convertino, G., **Kairam, S.**, Hong, L., Suh, B., & Chi, E.H. (2010): Designing a Cross-Channel Information Management Tool for Workers in Enterprise Task Forces. *AVI 2010: ACM Conference on Advanced Visual Interfaces*. [20% acceptance]

Hong, L., Convertino, G., Suh, B., Chi, E.H., & **Kairam, S.** (2010): FeedWinnower: Layering Structures over Collections of Information Streams. *CHI 2010: ACM Conference on Human Factors in Computing Systems*. [22% acceptance]

Journal Articles
2013 Pirolli, P., & **Kairam, S.** (2013): A Knowledge Tracing Model of Learning from a Social Tagging System. *The Journal of User Modeling and User-Adapted Interaction (UMUAI) [Special Issue on Personalization in Social Web Systems]*, 23 (2-3): 139-168.
2013 James Chen Annual Award for Best UMUAI Paper

2010 Evans, B.M., **Kairam, S.**, & Pirolli, P. (2010): Do Your Friends Make You Smarter? An Analysis of Social Strategies in Online Information Seeking. *Information Processing & Management (IP&M)*, 46 (6): 679-692.

Posters, Panels, & Workshop Papers
2016 **Kairam, S**. (2016): Social Sharing at Scale. In *Proceedings of the Doctoral Colloquium of CSCW 2016*. (February 2016)

2014 **Kairam, S**. (2014): Work in Progress: Degree-of-Interest Based Visual Exploration of Heterogeneous Networks. In *Proceedings of the Graduate Symposium of DIAGRAMS 2014*. (July 2014)

2012 Bernstein, M., Cosley, D., DiSalvo, C., **Kairam, S.**, Karger, D., Kriplean, T., Lampe, C., Mackay, W., Terveen, L., Wobbrock, J., & Yardi, S. (2012): Reject Me: Peer Review and SIGCHI. *CHI 2012 SIG* (May 2012)

2010 Bernstein, M., **Kairam, S.**, Suh, B., Hong, L., & Chi, E.H. (2010): A Torrent of Tweets: Managing Information Overload in Online Social Status Streams. *In Proceedings of the 2010 CHI Workshop on Microblogging: What and how can we learn from it?* (April 2010)

Convertino, G., **Kairam, S.**, Chi, E.H., Grasso, A., Pirolli, P., Stricker, T., & Bascaran, E. (2010): Designing for Learning Communities in a Large Enterprise. *Proceedings of the 2010 CSCW Workshop on Collective Intelligence*. (February 2010)

2009 Convertino, G., Stricker, T., **Kairam, S.**, Pirolli, P., Chi, E.H., Stricker, T., & Bascaran, E. (2009): Learning Communities in a Large Enterprise. *TEL-CoPs 2009: Proceedings of the 3rd Int'l Workshop on Building Technology Enhanced Learning Solutions for Communities of Practice*. (September 2009)

Evans, B.M., **Kairam, S.**, & Pirolli, P. (2009): Exploring the Cognitive Consequences of Social Search. *Extended Abstracts of CHI 2009: Works-in-progress*. (May 2009)
2nd Place, CHI Student Research Competition

AWARDS
2013 *Best Paper Honorable Mention, AAAI ICWSM 2013*
James Chen Best Paper Award, UMUAI 2013
Finalist, Facebook Fellowship
2012 *Finalist, Facebook Fellowship*
2009 *2nd Place, Student Research Competition, ACM CHI 2009*
2006 *Stanford Asian-American Award for Performing Arts*

ACADEMIC SERVICE

Chair

2018 ACM CSCW *Web Co-Chair*

2016 ACM CHI *Workshop Chair*

Program Committee

2017 AAAI ICWSM

2015 AAAI ICWSM, ACM CHI *Works-in-Progress*

2014 ACM CHI *Works-in-Progress*

2013 AAAI ICWSM

2012 ACM CHI *Video Showcase*

2011 ACM CHI *Video Showcase*

Reviewer

2018 ACM CHI

2017 ACM CHI, Graph Diagrams, IEEE Transactions on Learning Technologies

2016 ACM CSCW, MobileHCI

2015 ACM CHI, ACM CSCW, ACM UIST, IEEE InfoVis, EuroVis, PacificVis, IEEE TVCG

2014 ACM CSCW, ACM CHI, IEEE InfoVis, EuroVis, PacificVis, MobileHCI, ACM TOCHI

2013 ACM CSCW, AAAI ICWSM, ACM CHI *WIP*, ACM UIST, ACM UIST *Demos*

2012 IEEE InfoVis, ACM DIS, APCHI, IJCAI, ACM CHI *WIP*

2011 IJCAI, MobileHCI, ACM CHI *WIP*

2010 ACM CHI *WIP*

LEADERSHIP

2017 *Organizer*, Twitch Cares

2014-16 *Organizer*, Stanford HCI Group Lunch

2010-15 *Editor*, CrowdResearch.org Blog (Follow the Crowd)

2009-10 *Organizer*, PARC Interdisciplinary Data Lunch

2009 *Event Coordinator*, Workshop on Technology-Mediated Social Participation

TEACHING

2014 **INTRODUCTION TO HCI DESIGN (CS 147)**, STANFORD UNIVERSITY
Head Teaching Assistant, for Professor Michael Bernstein

2011 **DATA VISUALIZATION (CS 448B)**, STANFORD UNIVERSITY
Teaching Assistant, for Professor Jeffrey Heer

PRIOR INDUSTRY EXPERIENCE

2007 **DELOITTE CONSULTING,** SAN FRANCISCO, CA
Business Technology Analyst

2006 **GOOGLE, INC.**, MOUNTAIN VIEW, CA
Support Engineer & Process Analyst