

Computer Science Department
Stanford University
Gates Computer Science Building, #3-
353 Jane Stanford Way, Stanford, CA, 94305

(650) 334-5362 📞
@jsoon_s_pk 🐦
joonspk@stanford.edu ✉️
www.joonsungpark.com 🌐

Joon Sung Park

RESEARCH INTERESTS

Human-computer interaction; social computing; algorithm and bias; technology and society; human-centered AI

EDUCATION

- 2020 - **Stanford University**, Stanford, CA
Ph.D. in Computer Science
Advisor: Michael S. Bernstein
- 2018 - 2020 **University of Illinois at Urbana-Champaign (UIUC)**, Urbana, IL
M.S. (with thesis) in Computer Science
Advisor: Karrie Karahalios
- 2013 - 2017 **Swarthmore College**, Swarthmore, PA
B.A. with major in Computer Science
Advisor: Tia Newhall

AWARDS & HONORS

- 2020 **Stanford School of Engineering Fellowship**
Awarded in support of graduate studies at Stanford University.
- 2020 **Best Paper Honorable Mention, ACM CHI**
- 2019 **Siebel Scholar Award**
Awarded \$35,000. Given to the top graduate students in the world's leading graduate schools for their academic excellence and demonstrated leadership.
- 2016 **Eugene M. Lang Research Fellowship**
Awarded \$4,500 in support for summer research.

RESEARCH EXPERIENCE

- 2020/9 - **Stanford University**, Computer Science Department, Stanford, CA
Research Assistant
Faculty supervisor: Michael S. Bernstein
Working on topics related to human-AI interaction, with a particular focus on studying how users' input can dynamically shape the output of an AI application and the overall interaction.
- 2020/5 - 8 **Microsoft Research**, Redmond, WA
Research Intern

Mentors: Meredith Ringel Morris, Ece Kamar, and Danielle Bragg

Working on topics related to accessibility and inclusivity issues in AI applications, with a particular focus on creating inclusive AI datasets [13].

2018 - 2020 **University of Illinois at Urbana-Champaign**, Department of Computer Science, Urbana, IL
Research Assistant

Social Spaces Group

Faculty supervisor: Karrie Karahalios

- Working to better understand and improve users' interaction with complex algorithmic/AI systems by employing techniques of interaction design and algorithm audits [2, 6, 8, 9, 11, 12].

DataSpread Team

Faculty supervisors: Aditya Parameswaran and Karrie Karahalios

- Working on implementing DataSpread (a scalable spreadsheet application) and studying the mental models of spreadsheet users who work with big data [3].

Beyond the Black Box

Faculty supervisors: Christian Sandvig and Karrie Karahalios

- Working on a joint project between UIUC and the University of Michigan to study how black box algorithms impact the users [w-1].

2018/2 - 8 **Stanford University**, Computer Science Department, Stanford, CA
Research Assistant

Faculty supervisors: James Landay and Jeff Hancock

Working on analyzing election related Google search results to see how hyper-biased content shown on a search engine influences election outcomes [1, 4, 7].

2016/6 - 8 **Swarthmore College**, Department of Computer Science, Swarthmore, PA
Research Assistant

Faculty supervisor: Bryce Wiedenbeck

Led a project to build a new multi-agent environment model that captures the varying degree of competitiveness.

2015/6 - 8 **Seoul National University**, College of Medicine, Seoul, South Korea
Research Assistant

Faculty supervisor: Sung Sup Park

Performed microarray data analysis on gene expression datasets to identify global mRNA profiles in cells and logarithmic transformation on gene signals, using Python plotting packages.

ACADEMIC PUBLICATIONS

Top-tier venues for human-computer interaction research include CSCW and CHI. Since 2018, CSCW transitioned to a hybrid journal structure. The titles of the papers currently under review are edited in order to maintain authors' anonymity.

CONFERENCE & PACM (Conference-Journal Hybrid) PAPERS

[15] **Joon Sung Park**, Joseph Seering, Michael S. Bernstein. [On Content Moderation]. (*In submission '21*).

[14] **Joon Sung Park**, Karrie Karahalios, Niloufar Salehi, Motahhare Eslami. [On Algorithmic Governance]. (*In submission '21*).

- [13] Danaë Metaxa, **Joon Sung Park**, Ronald Robertson, Jeff Hancock, Christian Sandvig, Christo Wilson, Karrie Karahalios. [On algorithm audit]. (*In submission '21*).
- [12] **Joon Sung Park**, Danielle Bragg, Ece Kamar, Meredith Ringel Morris. Designing an Online Infrastructure for Collecting AI Data From People With Disabilities. Proceedings of the 2021 Conference on Fairness, Accountability, and Transparency (FAcCT '21).
- [11] Vinay Koshy, **Joon Sung Park**, Ti-Chung Cheng, Karrie Karahalios. "We Just Use What They Give Us": Understanding Passenger User Perspectives in Smart Homes. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '21).
- [10] Mufan Luo, Tiffany Hsu, **Joon Sung Park**, Jeff Hancock. 2020. Emotional Amplification During Live-Streaming: Evidence from Comments During and After News Events. Proc. ACM Hum.-Comput. Interact. (CSCW '20).
- [9] **Joon Sung Park**. Re-Examining the Role of Time in Human-Algorithm Interaction. University of Illinois at Urbana-Champaign (Thesis '20).
- [8] Sijia Xiao, Danaë Metaxa, **Joon Sung Park**, Karrie Karahalios, Niloufar Salehi. 2020. Random, Messy, Funny, Raw: Finstas as Intimate Reconfigurations of Social Media. Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI '20).
Best Paper Honorable Mention
- [7] Danaë Metaxa, **Joon Sung Park**, James Landay, Jeff Hancock. 2019. Search Media and Elections: A Longitudinal Investigation of Political Search Results in the 2018 U.S. Elections. Proc. ACM Hum.-Comput. Interact. 3, Article 129, 17 pages (CSCW '19).
- [6] **Joon Sung Park**, Rick Barber, Alex Kirlik, Karrie Karahalios. 2019. A Slow Algorithm Improves Users' Assessments of the Algorithm's Accuracy. Proc. ACM Hum.-Comput. Interact. 3, Article 102, 15 pages (CSCW '19).
- NONARCHIVAL PAPERS Peer reviewed
- [5] Mufan Luo, Tiffany Hsu, **Joon Sung Park**, Jeff Hancock. 2020. Live Streaming Intensifies Emotions: Evidence from Live and Retrospective Comments on YouTube. In the Annual International Communication Association Conference (ICA '20).
- [4] Danaë Metaxa, **Joon Sung Park**, James Landay, Jeff Hancock. 2019. Search Media and Elections: Investigating Partisanship in Political Search Results. In the Annual International Communication Association Conference (ICA '19).
- TECHNICAL REPORT
- [3] Pingjing Yang, Sajjadur Rahman, Mangesh Bendre, **Joon Sung Park**, Kevin Chang, Karrie Karahalios, Aditya Parameswaran. 2018. "It's a grid, it's a form, it's a spreadsheet!": Revisiting Sensemaking with Spreadsheets for Presentation and Data Analysis. Technical Report. September 2018.

MEDIA PUBLICATION

- [2] **Joon Sung Park**, Rick Barber, Alex Kirlik, Karrie Karahalios. (2019, December) Faster is not always better: benefits of slower interaction with our algorithmic systems. *ACM CSCW Medium*.
- [1] Jeff Hancock, Danaë Metaxa, **Joon Sung Park**. (2018, September) Are Google search results politically biased? *The Guardian*.

ART EXHIBITIONS

- 2017 **Solo Exhibition at List Gallery: Evanescent Spaces**, Swarthmore, PA
Presented my newest large scale oil paintings at the List Gallery, Swarthmore, PA
- 2016 **Group Exhibition at Kitao Gallery**, Swarthmore, PA
Presented my newest large scale oil paintings at the Kitao Gallery, Swarthmore, PA

SELECTED PROJECTS

All projects are documented @joonsungpark.com

- 2018/9 - 10 **commPAIR.io**, Eugene, OR
Full-stack Developer
Collaborated with Dave Markowitz (assistant professor at the University of Oregon) to launch a web application that can analyze user's Tweets in four different linguistic dimensions.
- 2015 - 2016 **Willow-Cutting Distributed Hash Table (WCDHT)**, Swarthmore, PA
Main Developer
Designed and implemented a scalable, new chained hash table algorithm that does not have to rehash when resizing. Supervised by Tia Newhall (professor at Swarthmore College).

WORK EXPERIENCE

- 2016 - 2017 **Galamingo.com**, Palo Alto, CA
Co-founder
Galamingo.com is a web platform for sharing creative portfolios.
 - As the only technical founder, implemented every aspect of the site, both frontend and backend (7,200 lines of maintainable backend Python code, 8,400 lines of Django template code).
 - 1,200 active users as of early 2017.
 - Some of the implementation highlights include:
 - designing randomization algorithm for efficiently getting random objects from a relational database.
 - designing and implementing a complex relational database using PostgreSQL.
 - setting up AWS S3 storage to serve all static and media files directed to Galamingo
 - setting up Solr internal search engine for in-site searches.
- 2014/6 - 8 **National Assembly of the Republic of Korea**, Seoul, South Korea
Intern Secretary, under Member of National Assembly, In Sook Park
Served under the committee of Ministry of Security and Public Administration.
 - Accompanied Park to the southern coastline of Korea in the aftermath of the national disaster, sinking of the MV Sewol, in an effort to soothe and support the victims' families.

- Drafted official inquiries for 2014 minister's confirmation hearing of Ministry of Security and Public Administration.

2014/1 - 5 **Philadelphia Museum of Art**, Philadelphia, PA
Student Ambassador, Marketing and Communications Division

INVITED TALKS

2020 **Microsoft Research HCI Seminar** Redmond, WA
Creating Inclusive AI Datasets for People With Disabilities and the Oldest Old

2016 **Sigma Xi Research Presentation** Swarthmore, PA
Modeling a Multi-Agent Environment with Varying Degrees of Agent Competitiveness

Greater Philadelphia Asian Studies Consortium Philadelphia, PA
On Fashion Uniformity Among Japanese College Students

SERVICE

Student Volunteer

CSCW 2019 (also won the SV t-shirt design competition)

Reviewer

CHI 2020, 2021, CSCW 2020, 2021, CHI Case Studies 2021, New Media & Society 2021, The Web Conference 2021

DEPARTMENTAL @Stanford

CS PhD Mentor for Underrepresented Students

2020-2021

CS PhD Student-Applicant Support Program (SASP) Reviewer

2020

STUDENTS ADVISED

Elizabeth Sivriver. Summer 2019. A summer REU student at UIUC.

Afterwards: PhD at UC Berkeley iSchool advised by Niloufar Salehi

Worked on Finstagram grant and research protocol design.

Colin Hall Kalicki. (co-mentored with Danaë Metaxa). Summer 2019. A CURIS at Stanford.

Worked on Chrome extension for media diet intervention project.

Aayush Agrawal. (co-mentored with Danaë Metaxa). Summer 2019. A CURIS at Stanford.

Worked on political trends in a search engine project.

Michelle Gan. (co-mentored with Danaë Metaxa). Summer 2019. A CURIS at Stanford.

Worked on search ranking user perception project.

SELECTED MEDIA COVERAGE

2019 [Search Results Not Biased Along Party Lines, Stanford Scholars Find](#)
Communication of ACM. Nov 27, 2019.

Search results not biased along party lines, Stanford scholars find
Stanford News. Melissa De Witte. Nov 26, 2019.

Siebel Scholars Foundation Announces Class of 2020
Bloomberg. Jennifer Stern. Sep 25, 2019.

World's Brightest Business, Computer Science, Bioengineering and Energy Science Students Join Distinguished Leaders
Business Wire. Jennifer Stern. Sep 25, 2019.

SKILLS

Technologies

Proficient in Python, C++, C, Django, HTML, CSS, JavaScript, jQuery, PostgreSQL, Git, Heroku; familiar with SASS, Amazon Web Service, R, previously used Websolr, Gambit, scikit-learn, MySQL, OpenCV, Twisted, CUDA, Arduino

Spoken Languages

English, Korean, Japanese

Others

Photoshop, experience working in multiple professional painting studios

IMMIGRATION STATUS

Country of Origin: South Korea

Immigration Status: US Permanent Resident (Green Card)