Shaomei Wu

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Research Interests

- **AI & HCI**: Research and design empowering AI technologies with marginalized communities.
- **Accessibility**: Push the envelope of accessibility beyond checklists and legal requirements.
- **Computational Social Sciences**: Understand collective behaviors and systematic marginalization online and offline.

Education

- **Cornell University** — Ithaca, NY
  Doctor of Philosophy, Information Science — *2007 - 2012*
  Dissertation: *The Dynamics of Information Diffusion on On-line Social Networks*
  Advisory committee: *Michael Macy, Jon Kleinberg, Dan Cosley*
- **University of California, Santa Barbara** — Santa Barbara, CA
  Master of Science, Computer Science — *2005 - 2007*
- **Tsinghua University** — Beijing, China
  Bachelor of Science and Engineering, Computer Science — *2001 - 2005*

Work Experience

- **AImpower.org** — Mountain View, CA
  Founder and CEO — *Feb 2022 - Present*
  - Found and lead AImpower.org, a nonprofit 501(c)(3) organization that researches and co-creates technologies *for*, *with*, and *by* marginalized communities to dismantle barriers, create benefits, and seek social justice.
- **MySpeech** — Remote
  Chief Technology Officer — *Mar 2022 - Oct 2022*
  - Guide MySpeech - a stuttering support and advocacy organization - during its transition to a digital platform for people who stutter. Responsibilities include: define R&D roadmap; architect technical infrastructure; advise the executive team on technical issues and directions; set up task management system; onboard and lead technical staff and volunteers.
- **Facebook** — Menlo Park, CA
  Staff Research Scientist — *Mar 2013 - Nov 2021*
  - **Instagram Equity**: Tech lead various efforts in identifying platform equity gaps and building new products for Black users on Instagram
  - **Facebook AI**: Found and lead the *AI for inclusion* initiative to build AI technologies that benefit marginalized and low-resourced communities through participatory design, rapid prototyping, and in-the-wide user studies.
  - **Core Data Science**: Drive research and engineering innovations on accessibility (e.g. Automatic Alt-text on Facebook); research and model networked behaviors such as app adoption, reshare of misinformation, and user churn.
- **Google** — Various Locations
  Research and Engineering Intern — *Jul 2006 - Dec 2011*
  - **Google.org**: Work on Google Person Finder and Crisis Alerts. Sep 2011 - Dec 2011
  - **Google Research**: Study the dynamics of user arrival and departures in a large social network. Jun 2011 - Aug 2011
  - **Google New York**: Build classifiers to categorize and rank user generated data (MyMaps). May 2009 - Aug 2009
  - **Google New York**: Build localized business classifiers for categorical search on Google Maps. May 2008 - Aug 2008
  - **Google Kirkland**: Build ML classifiers to identify hub pages for instant crawler. Jun 2007 - Aug 2007
  - **Google China**: Study online community structures and develop community detection algorithms. Jul 2006 - Sep 2006
- **Yahoo Research** — New York, NY
  Research Intern — *May 2010 - Oct 2010*
  - **Human Social Dynamics Group**: Work with Duncan Watts to study communication patterns in Twitter.
- **Microsoft Research Asia** — Beijing, China
  Research Intern — *Jul 2004 - Jul 2005*
  - **System Research Group**: Design and implement a large-scale, low-latency peer-to-peer routing protocol.

Publications

- Qisheng Li, **Shaomei Wu**. 2024. **"I Want to Publicize My Stutter": Community-led Collection and Curation of Chinese Stuttered Speech Data**. In *Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW '24)*
- Rong Gong, Hongfei Xue, Lezhi Wang, Xin Xu, Qisheng Li, Lei Xie, Hui Bu, **Shaomei Wu**, Jiaming Zhou, Yong Qin, Binbin Zhang, Jun Du, Jia Bin, Ming Li. 2024. **AS-70: A Mandarin Stuttered Speech Dataset for Automatic Speech Recognition and Stuttering Event Detection**. In *Proceedings of the InterSpeech Conference (InterSpeech '24)*
- Jingjin Li, **Shaomei Wu**, Gilly Leshed. 2024. **Re-envisioning Remote Meetings: Co-designing Inclusive and Empowering Videoconferencing with People Who Stutter**. In *Proceedings of the 2024 ACM Designing Interactive Systems Conference (DIS '24)* **Honorable Mention**
- Qisheng Li, **Shaomei Wu**. 2024. **Towards Fair and Inclusive Speech Recognition for Stuttering: Community-led Chinese Stuttered Speech Dataset Creation and Benchmarking**. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '24)*
- **Shaomei Wu**, Jingjin Li, Gilly Leshed. 2024. **Finding My Voice over Zoom: An Autoethnography of Videoconferencing Experience for a Person Who Stutters**. In *Proc. of the ACM CHI Conference on Human Factors in Computing Systems (CHI '24)*
- **Shaomei Wu**. 2023. **"The World is Designed for Fluent People": Benefits, Challenges, and Opportunities of Videoconferencing Technologies for People Who Stutter**. In *Proc. of the ACM CHI Conference on Human Factors in Computing Systems (CHI '23)*
- Yu-Ru Lin, **Shaomei Wu**, Winter Mason. 2023. **Mapping Language Literacy At Scale: A Case Study on Facebook**. *EPJ Data Science*, **12**, 13 (2023)
- **Shaomei Wu**, Lindsay Reynolds, Xian Li, Francisco (Paco) Guzman. 2019. **Design and Evaluation of a Social Media Writing Support Tool for People with Dyslexia**. In *Proc. of the ACM CHI Conference on Human Factors in Computing Systems (CHI '19)*
- Cole Gleason, Patrick Carrington, Lydia B Chilton, Benjamin M Gorman, Hernisa Kacorri, Andrés Monroy-Hernández, Meredith Ringel Morris, Garreth W Tigwell, and **Shaomei Wu**. 2019. **Addressing the Accessibility of Social Media**. *CSCW 2019 Extended Abstract*
- Lindsay Reynolds, **Shaomei Wu**. 2018. **"I'm Never Happy with What I Write": Challenges and Strategies of People with Dyslexia on Social Media**. In *Proc. of the 12th International AAAI Conference on Web and Social Media (ICWSM)*. **Best Paper Runner-up**
- Yuhang Zhao, **Shaomei Wu**, Lindsay Reynolds, Shiri Azenkot. 2018. **The Effect of Computer-Generated Descriptions on Photo-Sharing Experiences of People with Visual Impairments**. In *Proc. of the ACM Conference on Computer-Supported Cooperative Work & Social Computing (CSCW '18)*
- Yuhang Zhao, **Shaomei Wu**, Lindsay Reynolds, Shiri Azenkot. 2018. **A Face Recognition Application for People with Visual Impairments: Understanding Use Beyond the Lab**. In *Proc. of the ACM CHI Conference on Human Factors in Computing Systems (CHI '18)*
- **Shaomei Wu**, Jeffrey Wieland, Omid Farivar, Julie Schiller. 2017. **Automatic Alt-text: Computer-generated Image Descriptions for Blind Users on a Social Network Service**. In *Proc. of the 20th ACM Conference on Computer-Supported Cooperative Work & Social Computing (CSCW '17)*. **The 14th most cited CSCW paper published from '16 - '21** (Google Scholar).
- Violeta Voykinska, Shiri Azenkot, **Shaomei Wu**, and Gilly Leshed. 2016. **How Blind People Interact with Visual Content on Social Networking Services**. In *Proc. of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing (CSCW '16)* **The 20th most cited CSCW paper published from '16 - '21** (Google Scholar).
- Isabel Kloumann, Lada Adamic, Jon Kleinberg, and **Shaomei Wu**. 2015. **The Lifecycles of Apps in a Social Ecosystem**. In Proc. of *the 24th International World Wide Web Conference (WWW '15)*.
- **Shaomei Wu**, Lada Adamic. 2014. **Visually Impaired Users on an Online Social Network**. In *Proc. of The ACM CHI Conference on Human Factors in Computing Systems (CHI '14)*.
- **Shaomei Wu**, Atish Das Sarma, Alex Fabrikant, Silvio Lattanzi, and Andrew Tomkins. 2013. **Arrival and Departure Dynamics in Social Networks**. In Proc. of *the 6th ACM International Conference on Web Search and Data Mining (WSDM '13)*.
- **Shaomei Wu**, Chenhao Tan, Jon Kleinberg, and Michael Macy. 2011. **Does Bad News Go Away Faster?**. In Proc. of *the 5th International AAAI Conference on Weblogs and Social Media (ICWSM '11)*.
- **Shaomei Wu**, Jake M. Hofman, Winter A. Mason, and Duncan J. Watts. 2011. **Who Says What to Whom on Twitter**. In Proc. of *the 20th International World Wide Web Conference (WWW '11)*. **Over 1000 citations by 2019.**
- **Shaomei Wu**, Shenwei Liu, Dan Cosley, and Michael Macy. 2011. **Mining Collective Local Knowledge from Google MyMaps**. In Proc. of *the 20th International World Wide Web Conference (WWW '11)*.

Public Speaking

- Podcast (in Chinese). June 24, 2024. **AI的暗面：繁背後的障人士困境 (The Dark Side of AI: The Struggle of Disabled People Behind the Boom)**. 牛油果烤包 (Avocado Toast)
- Guest lecture. May 23, 2024. **AI and People with Disabilities**. Stanford University CS-377Q/ME-214 Designing for Accessibility (Spring 2024)

- Conference presentation. May 14, 2024. **Finding My Voice over Zoom: An Autoethnography of Videoconferencing Experience for a Person Who Stutters**. CHI '24
- Guest speaker. March 25, 2024. **Autoethnography as a Research Method**. Cornell University INFO/COMM 4400/5400/6400 Qualitative User Research and Design Methods (Spring 2024)
- Panelist. Feb 16, 2024. **Blocked by the System: How Current Voice AI Silences People Who Stutter**. American Association for Advancement in Science (AAAS) Annual Meeting
- Online exhibition: "Multiverse: Disability, Technology, and Co-created Futures". Dec 2, 2023. **Stuttering community can create their own technological future**. Tsinghua University Science Museum & MIT Museum
- Keynote speaker. Oct 21, 2023. **International Stuttering Awareness Day Virtual Conference**. 口吃说(StammerTalk)
- Workshop moderator. Jul 6, 2023. **Claim Your Virtual Presence**. National Stuttering Association Annual Conference
- Invited speaker. May 6, 2023. **人工智能数据标注行业扫描 (AI Data Annotation Industry)**. 奇途无障碍- 数字经济与残障女性就业分享第05期 (Digital Economy and Employment Opportunities for Women with Disabilities Forum Vol. 05)
- Conference presentation. Apr 26, 2023. **"The World is Designed for Fluent People":Benefits and Challenges of Videoconferencing Technologies for People Who Stutter**. CHI '23
- Panelist. Apr 14, 2023. **Sociotechnical Challenges in Voice-Activated AI**. Voice-Activated AI for Stuttered Speech Convergence Symposium
- Computation Media Department Seminar. Mar 20, 2023. **Designing Empowering Technologies for and with Marginalized Communities**. University of California, Santa Cruz
- Guest lecture. Mar 8, 2023. **AI and the Systematic Marginalization of People with Disabilities**. University of Ottawa CSI5195/ELG5295/IAI5130 Ethics for Artificial Intelligence (winter 2023)
- Organizer Seminar Series. Jan 24, 2023. **Break the Invisible Wall: Challenges and Opportunities for People Who Stutter to Participate in In-person and Virtual Conferences**. Virtual Chair
- Podcast (in Chinese). Jan 26, 2023. **AI x 无障碍设计（下）— 如何防止科技变成边缘化弱势群体的武器？(AI and Accessibility Part II: How to Deweaponize Technologies Against Marginalized Communities**. 扩博智聊(Clobotics)
- Podcast (in Chinese). Jan 19, 2023. **AI x 无障碍设计（上）— 她就是一位曾经在脸书用AI默默关怀视障群体的"杨紫琼" (AI and Accessibility Part I: She Built Meta's AI Accessibility Features for People with Visual Impairments)**. 扩博智聊(Clobotics)
- Panelist. Jan 10, 2023. **Natural Language Processing for Media Accessibility**. W3C Artificial Intelligence and Accessibility Research Symposium
- Invited talk. Dec 2, 2022. **Finding Power From Shared Vulnerability**. San Jose State University
- Invited talk. Nov 3, 2022. **AI and the Empowerment of People with Disabilities**. SheTek Women's Tech Conference 2022
- Invited talk. Oct 21, 2022. **Acceptance and Empowerment as a Person Who Stutters**. International Stuttering Awareness Day (China)
- Podcast (in Chinese). Oct 11, 2022. **从硅谷科学家到非盈利机构创始人-吴少玫 (From Silicon Valley Scientist to Nonprofit Founder - Shaomei Wu)**. 口吃说 (Stammer Talk)
- Podcast (in Chinese). Jul 13, 2022. **在理科世界里摸爬滚打的女孩们 (Women in STEM)**. 故事FM
- Invited Talk. Apr 27, 2022. **AI and Systematic Marginalization of Disabled People**. Columbia University Data for Social Good Club

Popular Blog Posts & Other Publications

- **Shaomei Wu**. 2018. **Using AI to help people with visual impairments share images on Facebook**. *Facebook Research Blog.*
- **Shaomei Wu**, Lindsay Reynolds. 2018. **Designing a face recognition application for people with visual impairments**. *Facebook Research Blog*
- **Shaomei Wu**. 2016. **How blind people interact with visual content on social networking sites**. *Facebook Research Blog*
- **Shaomei Wu**, Darío García García, Manohar Paluri. 2016. **Under the hood: Building accessibility tools for the visually impaired on Facebook**. *Facebook Engineering Blog*
- **Shaomei Wu**, Hermes Pique, Jeffrey Wieland. 2016. **Using Artificial Intelligence to Help Blind People 'See' Facebook**. *Facebook Newsroom*

Selected Press coverage

- Work on inclusive videoconferencing featured in "Redesigning videoconferencing for, and by, people who stutter ", *Cornell Chronicle*, July 9, 2024.
- Work on automatic alt-text featured in "Facebook Just Launched AI-Powered Technology That Reads Photos to the Blind", *Fortune*, April 5, 2016.
- Research on Twitter featured in "The New York Times and Twitter", *The New York Times*, March 29, 2011.
- Research on Twitter featured in "The Twittersphere is Dominated By Less than One Percent of Twitter Users", *Time*, March 29, 2011.

Services

- **Industry Advisory Board**: UC Santa Cruz, Computational Media Department, since August 2023
- **Program Co-Chair**: WebForAll (W4A) 2023
- **Accessibility Challenge Co-Chair**: W4A 2022
- **Doctorate Consortium Co-Chair**: W4A 2021
- **Associate Chair**: the ACM CHI Conference on Human Factors in Computing Systems (CHI) 2018, 2020, 2021, 2022
- **Associate Chair**: the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW) 2025
- **Senior Program Committee**: the International AAAI Conference on Web and Social Media (ICWSM) 2016 - 2024
- **Dataset Co-Chair**: ICWSM 2022
- **Tutorial Co-Chair**: ICWSM 2021
- **Workshop Co-Chair**: ICWSM 2019
- **Program Committee**: International Conference on Computational Social Science (IC2S2) 2023 - 2024
- **Program Committee**: The Web Conference (TWC, formally WWW) 2019, 2021, 2022
- **Program Committee**: the International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS) 2015 - 2024
- **Program Committee**: ICWSM 2013, 2014
- **Workshop Organizer**: *Addressing the Accessibility of Social Media Workshop* @ CSCW 2019
- **Panel of Judges**: W4A Accessibility Challenge 2020, 2021
- **Reviewer**: the ACM Transactions on Accessible Computing, the ACM International Conference on Web Search and Data Mining (WSDM) (2012), CHI (2016, 2017, 2019, 2023, 2024), the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW) (2018, 2019, 2020, 2021), the ACM Symposium on User Interface Software and Technology (UIST) (2019), New Media & Society

Teaching Experience

- **Cornell University**
  Teaching Assistant
  - **INFO 4302/6302**: Web Information Systems. *Spring 2011*
  - **PSYCH/COGST/INFO 214/614**: Computational Cognitive Psychology. *Fall 2007*
- **University of California, Santa Barbara**
  Teaching Assistant
  - **CS10**: Object Oriented Programming in Java. *Winter 2007*
  - **CS276**: Graduate Networking. *Fall 2006*
  - **CS290F**: Large-scale Networked Systems. *Spring 2006*
  - **CS5JA**: Introduction to Computer Programming. *Winter 2006*
  - **CS170**: Operating Systems. *Fall 2005*

Mentoring Experiences

- Siddharth Bajaj (MPS student, Cornell Information Science)
- Jiang Jian (MPS student, Cornell Information Science)
- Violeta Voykinska (MPS student at Cornell Information Science, now Senior Design Researcher at Designit)
- Isabel Kloumman (PhD Intern, now Research Manager at Facebook)
- Yuhang Zhao (PhD Intern, now Assistant Professor at University of Wisconsin, Madison)
- Kinyetta Nance (PhD Intern, co-mentor, now Researcher at Twitter)
- Kelly Mack (Undergrad Intern, co-mentor, now PhD student at University of Washington)
- Rose Hong (Undergrad Intern, now senior at Harvard University)
- Michela Paganini (Postdoc Researcher at Facebook AI Research, now Research Scientist at DeepMind)
- Roman Rädle (Visiting Researcher at Facebook / Assistant Professor at Aarhus University, now Software Engineer at Facebook)
- Xinyue Zhang (Software Engineer at Facebook)
- Xinyu Li (Software Engineer at Facebook)
- Ming Sun (Applied Research Scientist at Facebook)
- Greg Price (Master student, University of Ottawa)

- Monica Tjen (Master student, University of Ottawa)
- Colson Pettipas (Master student, University of Ottawa)
- Jennina Mae Pascual (Master student, University of Ottawa)
- Harshank Pathak (Master student, University of Ottawa)
- Aishwarya Pai (Master student, Santa Clara University
- Charan Sridhar (High school student at at BASIS Independent Silicon Valley)

References

A full list of references is available upon request.