

# Joseph Chee Chang

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## Appointments

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- 2023– Senior Research Scientist, Allen Institute for Artificial Intelligence (Ai2)  
The Asta Project / Agents, Infrastructure, Scholar QA <https://asta.allen.ai/>
- 2021–2023 Research Scientist, Allen Institute for Artificial Intelligence (Ai2)  
The Semantic Reader Project <https://openreader.semanticscholar.org/>
- 2020–2021 Postdoctoral Fellow, Center for Knowledge Acceleration, Carnegie Mellon University  
Research and commercialization of my thesis work with a startup team of researchers, engineers, designers and product managers. <https://www.skeema.com/>
- 2016 Summer Research Intern, Microsoft Research, Redmond  
Mentors: Saleema Amershi and Ece Kamar. Work published in CHI 2017.
- 2013 Search Software Engineer, Yahoo Inc.  
Search query and click log analysis using Hadoop for the Yahoo Knowledge Graph
- 2009–2011 Research Assistant (part-time), Academia Sinica  
Cross-lingual ontology mapping (WordNet and eHowNet)

## Education

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- 2013–2020 Ph.D., Language Technologies Institute, School of Computer Science, Carnegie Mellon University  
*Thesis: Supporting Global Context under Evolving User Intents during Data Exploration.*  
Committee: Aniket Kittur (CMU, Chair), Jeffrey Bigham (CMU), Adam Perer (CMU), and David Karger (MIT)
- 2010–2012 M.S., Information Systems, National Tsing-Hua University  
*Thesis: Mining Named-Entity Translation and Transliteration Pairs on the Web.* (ACL 2012 oral) Advisor: Roger Jang
- 2006–2010 B.S., Computer Science, Yuan Ze University  
*Independent Study: A 3D Integrated Circuit Partitioning Algorithm.* Advisor: Yi-Yu Liu

## Awards and Honors

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2024	ACM CHI Best Paper Award (1%)
2023	EMNLP Best Paper Award - System Demonstrations (1/203)
2023	ACM CHI Best Paper Award (1%)
2021	ACM CHI Best Paper Honorable Mentions Award
2018	ACM CHI Best Paper Honorable Mentions Award
2016a	ACM CHI Best Paper Honorable Mentions Award
2016b	ACM CHI Best Paper Honorable Mentions Award
2016	AAAI HCOMP Encore Paper Invited Talk Series
2015	Fellowship of the Yahoo InMind Projects at CMU
2015	Taiwan Government Scholarship for Studying Abroad
2011	First Place (1/170), Taipei City Government Mobile App Development Competition
2010	Third Award, National IC/CAD Algorithm Contest, Dept. of Education Taiwan
2010	Second Place (2/67), Trend Micro Programming Contest
2008	Undergraduate Research Thesis Award

## Publications

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### Peer-reviewed Conferences and Journals

I no longer maintain a latex version of my publication lists. Please refer to my [Google Scholar Profile](#) or my website: <https://josephcc.com/papers>

### Patents

- [1] Methods and Software for Bundle-Based Content Organization, Manipulation, and/or Task Management. Aniket Kittur and Joseph Chee Chang. 2024. U.S. Patent Application No. US20240111411A1.
- [2] Task-Centric User Interfaces For Searching And Managing Search Results, And Software Therefor. Joseph Chee Chang and Aniket Kittur. 2022. U.S. Patent Application No. US17/701,936. US20220215068A1.
- [3] Methods of Providing a Search-Ecosystem User Interface For Searching Information Using a Software-Based Search Tool and Software for Same. Aniket Kittur, Nathan Hahn, and Joseph Chee Chang. 2019. U.S. Patent Application No. 16/463,068. US20190286683A1.

## Selected Media Coverage

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- [1] Science: Open-source AI program can answer science questions better than humans. Developed by and for academics, OpenScholar aims to improve searches of the ballooning scientific literature. Jeffrey Brainard. <https://www.science.org/content/article/open-source-ai-program-can-answer-science-questions-better-humans>
- [2] Mashable: Stop trying to work in multiple browser tabs. It’s terrible for your focus. - Tab hoarding gives the illusion that multitasking is possible, but it’s not. Rebecca Ruiz. <https://mashable.com/article/too-many-tabs-open>
- [3] Fast Company: The twisted psychology of browser tabs—and why we can’t get rid of them - New research proves that it’s not just you: Browser tabs are scientifically terrible. Mark Wilson. <https://www.fastcompany.com/90635776/the-twisted-psychology-of-browser-tabs-and-why-we-cant-get-rid-of-them>
- [4] Metro New UK: Suffer from ‘tab overload’? Scientists study why we have so many open. Katherine Hignett. <https://metro.co.uk/2021/05/10/suffer-from-tab-overload-scientists-study-why-we-have-so-many-open-14540577/amp/>
- [5] CMU News: Overcoming Tab Overload - CMU researchers develop tool to better manage browser tabs. Aaron Aupperlee. <https://www.cmu.edu/news/stories/archives/2021/may/overcoming-tab-overload.html>
- [6] MIT News: For more open and equitable public discussions on social media, try “meronymity”. Adam Zewe. <https://news.mit.edu/2024/litweeture-uses-meronymity-social-media-open-discussions-0418>

## Grants (Co-wrote with PI Aniket Kittur)

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| 2020 | Office of Naval Research Grant<br><i>“Externalizing and Aggregating Structured Mental Representations”</i>     |
| 2019 | Google Faculty Research Award<br><i>“Modeling and Augmenting Sensemaking and Exploratory Search”</i> (renewed) |
| 2018 | Google Faculty Research Award<br><i>“Modeling and Augmenting Sensemaking and Exploratory Search”</i>           |
| 2017 | National Science Foundation AIR-TT Grant<br><i>“Supporting Complex Sensemaking on Mobile Phones”</i>           |
| 2016 | Google Faculty Research Award<br><i>“Supporting Complex Sensemaking on Mobile Phones”</i>                      |
| 2015 | Yahoo! InMind Projects at CMU<br><i>“From Search Results to Search Landscapes”</i>                             |

## Service

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2026	ACM SIGCHI: <i>Augmenting Reading Workshop</i>	Organizer
2025	ACL: <i>Tutorial on Human-AI Collaboration</i>	Organizer
2018-present	ACM CSCW	Reviewer
2018-present	ACM UIST	Reviewer
2018-present	ACM SIGCHI	Reviewer
2025	ACM SIGCHI: <i>Blending Interaction</i> Subcommittee	Area Chair
2024	ACM SIGCHI: <i>In2Writing Workshop</i>	Reviewer
2024	ACM DIS	Reviewer
2022	ACM NordiCHI	Reviewer
2020	ACM CHI PLAY	Reviewer
2019	AAAI	Reviewer
2019	Elsevier FGCS	Reviewer
2016	ACM CHIIR	Student Volunteer

## Teaching and Mentoring

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### Guest Lecture

2023	Human-AI Interaction & Systems (Dr. Anhong Guo)	University of Michigan
2020	Advanced User Interface Software (Dr. Brad Myers)	Carnegie Mellon University
2019	HCI Process and Theory (Dr. Aniket Kittur)	Carnegie Mellon University

### Mentoring

2022- 2025	PhD Research Interns x12	Allen Institute for AI
2019	Master of HCI Program, Capstone Projects x1	Carnegie Mellon University
2014- 2017	REU Summer Interns x8	Carnegie Mellon University

### Teaching Assistant

2018	Data Science Capstone Course	Carnegie Mellon University
2018	Applied Machine Learning	Carnegie Mellon University
2012	Intro to Natural Language Processing	National Tsing-Hua University
2009	Intro to Computer Architecture	Yuan Ze University