

TIM ALTHOFF

CURRICULUM VITAE

Paul G. Allen School of Computer Science & Engineering
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- Research** Data science, social network analysis, natural language processing, and applications to well-being
- Professional experience**
- University of Washington**, Seattle, WA, USA 1/2019 – present
Tenure-Track Assistant Professor, Paul G. Allen School of Computer Science & Engineering
Adjunct Assistant Professor, Information School
 - Stanford University**, Stanford, CA, USA 9/2013 – 9/2018
Research Assistant with Jure Leskovec, Dan Jurafsky, Dan McFarland
 - Microsoft Research**, Redmond, WA, USA 6/2016 – 9/2016
Research Intern with Eric Horvitz, Ryen White
 - Google Research**, Mountain View, CA, USA 6/2014 – 9/2014
Research Intern with Kevin Murphy, Xin Luna Dong, Evgeniy Gabrilovich
 - Google Research**, Mountain View, CA, USA 5/2013 – 8/2013
Research Intern with David Ross
 - Google Research**, Mountain View, CA, USA 5/2012 – 8/2012
Research Intern with David Ross, Douglas Eck, Hrishikesh Aradhye
 - University of California, Berkeley**, Berkeley, CA, USA 8/2011 – 5/2012
Visiting Student Researcher with Trevor Darrell
 - German Research Center for Artificial Intelligence**, Kaiserslautern, Germany 11/2009 – 5/2011
Research Assistant with Adrian Ulges, Damian Borth, Andreas Dengel
 - German Research Center for Artificial Intelligence**, Kaiserslautern, Germany 5/2009 – 10/2009
Research Assistant with Adrian Ulges, Thomas Breuel
- Education**
- Stanford University**, Stanford, CA, USA 9/2013 – 9/2018
Ph.D. in Computer Science.
Thesis: *Data Science for Human Well-being* (Winner of **SIGKDD Dissertation Award**)
Dissertation committee: Jure Leskovec, Eric Horvitz, Dan Jurafsky, Scott Delp, Trevor Hastie
M.S. in Computer Science (8/2015)
 - University of Kaiserslautern**, Kaiserslautern, Germany 10/2007 – 7/2013
M.S. in Computer Science. Minor in Cognitive Psychology
Thesis: *Analysis and Forecasting of Trending Topics in Online Media* (won **University-wide Award**)
B.S. in Computer Science. Minor in Mathematics
Thesis: *Scalable Clustering for Hierarchical Content-based Browsing of Large-scale Image Collections*
- Publications** **Articles in peer-reviewed journals**
- [52] Human-AI Collaboration Enables More Empathic Conversations in Text-based Peer-to-Peer Mental Health Support
Ashish Sharma, Inna Lin, Adam Miner, David Atkins, **Tim Althoff**
Nature Machine Intelligence – 2023
 - [51] Leveraging Mobile Technology For Public Health Promotion: A Multidisciplinary Perspective
Jennifer L. Hicks, Melissa A. Boswell, **Tim Althoff**, Alia J. Crum, James A. Landay, Joy P. Ku, Paula M.L. Moya, Elizabeth L. Murnane, Michael P. Snyder, Abby C. King, Scott L. Delp
Annual Review of Public Health – 2023
 - [50] Disparate Impacts on Online Information Access during the COVID-19 Pandemic
Jina Suh, Eric Horvitz, Ryen W. White, **Tim Althoff**
Nature Communications – 2022

- [49] Estimating the Burden of Influenza on Daily Activity at Population Scale Using Commercial Wearable Sensors
Aziz Mezlini, Allison Shapiro, Eric J. Daza, Eamon Caddigan, Ernesto Ramirez, **Tim Althoff**, Luca Foschini
JAMA Network Open — 2022
- [48] Large-scale diet tracking data reveal disparate associations between food environment and diet
Tim Althoff, Hamed Nilforoshan, Jenna Hua, Jure Leskovec
Nature Communications — 2022
- [47] CORAL: COde RepresentAtion Learning with Weakly-Supervised Transformers for Analyzing Data Analysis
Ge Zhang, Mike Merrill, Yang Liu, Jeff Heer, **Tim Althoff**
EPJ Data Science — 2022
- [46] GLOBEM: Cross-Dataset Generalization of Longitudinal Human Behavior Modeling
Xuhai Xu, Xin Liu, Han Zhang, Weichen Wang, Subgiya Nepal, Kevin S. Kuehn, Jeremy Huckins, Margaret E. Morris, Paula S. Nurius, Eve A. Riskin, Shwetak Patel, **Tim Althoff**, Andrew Campbell, Anind K. Dey, Jennifer C. Mankoff
IMWUT / UbiComp — *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, 2022
- [45] Uncovering the linguistic characteristics of psychotherapy: a computational approach to measure therapist language timing, responsiveness, and consistency
Adam S Miner, Scott L Fleming, Albert Haque, Jason Fries, **Tim Althoff**, Denise Wilfley, W Stuart Agras, Arnold Milstein, Jeff Hancock, Steven M Ash, Shannon W Stirman, Bruce A Arnow, Nigam Shah
npj Mental Health Research — 2022
- [44] Same data, different conclusions: Radical dispersion in empirical results when independent analysts operationalize and test the same hypothesis
Martin Schweinsberg, ..., **Tim Althoff**, ..., Eric Luis Uhlmann (179 authors total)
Organizational Behavior and Human Decision Processes — 2021
- [43] Daily, weekly, seasonal, and menstrual cycles in female mood, behavior, and vital signs
Emma Pierson, **Tim Althoff**, Daniel Thomas, Paula Hillard, Jure Leskovec
Nature Human Behavior — 2021
- [42] Characterizing COVID-19 and Influenza Illnesses in the Real World via Person-Generated Health Data
Nikki Marinsek, Allison Shapiro, Ieuan Clay, Ben Bradshaw, Ernesto Ramirez, Jae Min, Andrew Trister, Yuedong Wang, **Tim Althoff**, Luca Foschini
Cell Patterns — 2021
- [41] Efficient and Explainable Risk Assessments for Imminent Dementia: Insights from an Aging Cohort Study
Nicasia Beebe-Wang*, Alexandra Okeson*, **Tim Althoff**[§], Su-In Lee[§] (*[§] equal contribution)
IEEE Journal of Biomedical and Health Informatics — 2021
- [40] Assessing the relationship between routine and schizophrenia symptoms with passively sensed measures of behavioral stability
Joy He-Yueya, Benjamin Buck, Andrew Campbell, Tanzeem Choudhury, John M Kane, Dror Ben-Zeev, **Tim Althoff**
NPJ Schizophrenia — 2020
- [39] Leveraging Routine Behavior and Contextually-Filtered Features for Depression Detection among College Students
Xuhai Xu, Perna Chikersal, Afsaneh Doryab, Daniella Villalba, Janine M. Dutcher, Michael Tumminia, **Tim Althoff**, Sheldon Cohen, Kasey Creswell, David Creswell, Jennifer Mankoff, Anind K. Dey
IMWUT / UbiComp — *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*, 2019
- [38] Best Practices for Analyzing Large-scale Health Data from Wearables and Smartphone Apps
Jennifer L. Hicks, **Tim Althoff**, Rok Susic, Peter Kuhar, Bojan Bostjancic, Abby C. King, Jure

- Leskovec, Scott L. Delp
[NPJ Digital Medicine](#) — 2019
- [37] Psychomotor Function Measured via Online Activity Predicts Motor Vehicle Fatality Risk
Tim Althoff, Eric Horvitz, Ryen W. White
[NPJ Digital Medicine](#) — 2018
- [36] Large-scale Physical Activity Data Reveal Worldwide Activity Inequality
Tim Althoff, Rok Susic, Jennifer L. Hicks, Abby C. King, Scott L. Delp, Jure Leskovec
[Nature](#) — 2017
Top 0.0002% Altmetric Attention Score of 8M articles; Top 0.002% among Nature articles
- [35] Population-scale Pervasive Health
Tim Althoff
[IEEE Pervasive Computing](#) — 2017
- [34] Influence of Pokémon Go on Physical Activity: Study and Implications
Tim Althoff, Ryen W. White, Eric Horvitz
[JMIR — Journal of Medical Internet Research \(JMIR\)](#), 2016
Top 0.001% Altmetric Attention Score of 8M articles
- [33] Natural Language Processing for Mental Health: Large Scale Discourse Analysis of Counseling Conversations
Tim Althoff*, Kevin Clark*, Jure Leskovec (* equal contribution)
[TACL — Transactions of the Association for Computational Linguistics \(TACL\)](#), 2016
 **International Medical Informatics Association Best Paper Award for best paper on clinical natural language processing in 2016**

Articles in peer-reviewed conference proceedings

- [32] Understanding and Supporting Debugging Workflows in Multiverse Analysis
 Ken Gu, Eunice Jun, **Tim Althoff**
[CHI \(accepted\)](#) — *ACM CHI Conference on Human Factors in Computing Systems*, 2023
- [31] GLOBEM: Multi-Year Datasets for Longitudinal Human Behavior Modeling Generalization
 Xuhai Xu, Han Zhang, Yasaman Sefidgar, Xin Liu, Woosuk Seo, Jennifer Brown, Yiyi Ren, Kevin Kuehn, Mike Merrill, Paula Nurius, Anne Browning, Shwetak Patel, **Tim Althoff**, Magaret E. Morris, Eve Riskin, Jennifer Mankoff, Anind K. Dey
[NeurIPS](#) — *36th Conference on Neural Information Processing Systems*, 2022
- [30] Gendered Mental Health Stigma in Masked Language Models
 Inna Wanyin Lin*, Lucille Njoo*, Anjalie Field, Ashish Sharma, Katharina Reinecke, **Tim Althoff**, Yulia Tsvetkov
[EMNLP](#) — *Conference on Empirical Methods in Natural Language Processing*, 2022
- [29] What Makes Online Communities 'Better'? Measuring Values, Consensus, and Conflict across Thousands of Subreddits
 Galen Weld, Amy Zhang, **Tim Althoff**
[ICWSM](#) — *16th International AAAI Conference on Weblogs and Social Media*, 2022
- [28] Adjusting for Confounders with Text: Challenges and an Empirical Evaluation Framework for Causal Inference
 Galen Weld*, Peter West*, Maria Glenski, David Arbour, Ryen Rossi, **Tim Althoff**
[ICWSM](#) — *16th International AAAI Conference on Weblogs and Social Media*, 2022
- [27] Towards Facilitating Empathic Conversations in Online Mental Health Support: A Reinforcement Learning Approach (Extended Abstract)
 Ashish Sharma, Inna Lin, Adam Miner, David Atkins, **Tim Althoff**
[IJCAI](#) — *31st Intl. Joint C. on Artificial Intelligence – Sister Conference Best Paper Track*, 2022
- [26] MULTIVERSE: Mining Collective Data Science Knowledge from Code on the Web to Suggest Alternative Data Analysis Approaches
 Mike Merrill, Ge Zhang, **Tim Althoff**
[KDD](#) — *27th International ACM Conference on Knowledge Discovery and Data Mining*, 2021
- [25] Political Bias and Factualness in News Sharing across more than 100,000 Online Communities
 Galen Weld, Maria Glenski, **Tim Althoff**
[ICWSM](#) — *15th International AAAI Conference on Weblogs and Social Media*, 2021
 **Best Paper Award for Outstanding Analysis Paper**

- [24] The Effect of Moderation on Online Mental Health Conversations
David Wadden, Tal August, Qisheng Li, **Tim Althoff**
ICWSM – 15th International AAAI Conference on Weblogs and Social Media, 2021
🏆 **Best Paper Award for Outstanding Study Design**
- [23] Towards Facilitating Empathic Conversations in Online Mental Health Support: A Reinforcement Learning Approach
Ashish Sharma, Inna Lin, Adam Miner, David Atkins, **Tim Althoff**
WWW/WebConf – 30th International World Wide Web Conference, 2021
🏆 **Best Paper Award (single award across all 1736 submissions)**
- [22] Online Mobile App Usage as an Indicator of Sleep Behavior and Job Performance
Chunjong Park, Morelle Arian, Xin Liu, Leon Sasson, Jeffrey Khan, Shwetak Patel, Alex Mariakakis, **Tim Althoff**
WWW/WebConf – 30th International World Wide Web Conference, 2021
- [21] Population-Scale Study of Human Needs During the COVID-19 Pandemic: Analysis and Implications
Jina Suh, Eric Horvitz, Ryen White, **Tim Althoff**
WSDM – 14th ACM International Conference on Web Search and Data Mining, 2021
- [20] A Computational Approach to Understanding Empathy Expressed in Text-Based Mental Health Support
Ashish Sharma, Adam Miner, David Atkins, **Tim Althoff**
EMNLP – Conference on Empirical Methods in Natural Language Processing, 2020
- [19] Boba: Authoring and Visualizing Multiverse Analyses
Yang Liu, Alex Kale, **Tim Althoff**, Jeff Heer
VAST – IEEE Visual Analytics Science and Technology (VAST), 2020
- [18] Data-Driven Implications for Translating Evidence-Based Psychotherapies into Technology-Delivered Interventions
Jessica Schroeder, Jina Suh, Chelsey Wilks, Mary Czerwinski, Sean Munson, James Fogarty, **Tim Althoff**
PH – EAI PervasiveHealth, 2020
- [17] Engagement Patterns of Peer-to-Peer Interactions on Mental Health Platforms: A Case-Study of TalkLife
Ashish Sharma, Monojit Choudhury, **Tim Althoff**, Amit Sharma
ICWSM – 14th International AAAI Conference on Weblogs and Social Media, 2020
- [16] Paths Explored, Paths Omitted, Paths Obscured: Decision Points & Selective Reporting in End-to-End Data Analysis
Yang Liu, **Tim Althoff**, Jeff Heer
CHI – ACM CHI Conference on Human Factors in Computing Systems, 2020
- [15] Passively-sensed Behavioral Correlates of Discrimination Events in College Students
Yasaman S. Sefidgar, Woosuk Seo, Kevin S. Kuehn, **Tim Althoff**, Anne Browning, Eve Riskin, Paula S. Nurius, Anind K. Dey, Jennifer Mankoff
CSCW – 22nd Conference on Computer-Supported Cooperative Work & Social Computing, 2019
- [14] Goal-setting And Achievement In Activity Tracking Apps: A Case Study Of MyFitnessPal
Mitchell Gordon, **Tim Althoff**, Jure Leskovec
WWW/WebConf – 28th International World Wide Web Conference, 2019
- [13] Modeling Interdependent and Periodic Real-World Action Sequences
Takeshi Kurashima, **Tim Althoff**, Jure Leskovec
WWW – 27th International World Wide Web Conference, 2018
- [12] Modeling Individual Cyclic Variation in Human Behavior
Emma Pierson, **Tim Althoff**, Jure Leskovec
WWW – 27th International World Wide Web Conference, 2018
- [11] I'll be back: On the Multiple Lives of Users of a Mobile Activity Tracking Application
Zhiyuan Lin, **Tim Althoff**, Jure Leskovec
WWW – 27th International World Wide Web Conference, 2018

- [10] Harnessing the Web for Population-Scale Physiological Sensing: A Case Study of Sleep and Performance
Tim Althoff, Ryen W. White, Eric Horvitz, Jamie Zeitzer
[WWW](#) — *26th International World Wide Web Conference*, 2017
- [9] How Gamification Affects Physical Activity: Large-scale Analysis of Walking Challenges in a Mobile Application
 Ali Shameli, **Tim Althoff**, Amin Saberi, Jure Leskovec
[WWW](#) — *26th International World Wide Web Conference*, 2017
- [8] Online Actions with Offline Impact: How Online Social Networks Influence Online and Offline User Behavior
Tim Althoff, Pranav Jindal, Jure Leskovec
[WSDM](#) — *10th International ACM Conference on Web Search and Data Mining*, 2017
- [7] TimeMachine: Timeline Generation for Knowledge-Base Entities
Tim Althoff, Xin Luna Dong, Kevin Murphy, Safa Alai, Van Dang, Wei Zhang
[KDD](#) — *21st International ACM Conference on Knowledge Discovery and Data Mining*, 2015
- [6] Donor Retention in Online Crowdfunding Communities: A Case Study of DonorsChoose.org
Tim Althoff, Jure Leskovec
[WWW](#) — *24th International World Wide Web Conference*, 2015
- [5] How to Ask for a Favor: A Case Study on the Success of Altruistic Requests
Tim Althoff, Cristian Danescu-Niculescu-Mizil, Dan Jurafsky
[ICWSM](#) — *8th International AAAI Conference on Weblogs and Social Media*, 2014
- [4] Analysis and Forecasting of Trending Topics in Online Media Streams
Tim Althoff, Damian Borth, Jörn Hees, Andreas Dengel
[MM](#) — *21st ACM International Conference on Multimedia*, 2013
- [3] Detection Bank: An Object Detection Based Video Representation for Multimedia Event Recognition
Tim Althoff, Hyun Oh Song, Trevor Darrell
[MM](#) — *20th ACM International Conference on Multimedia*, 2012
- [2] Sparselet Models for Efficient Multiclass Object Detection
 Hyun Oh Song, Stefan Zickler, **Tim Althoff**, Ross Girshick, Mario Fritz, Christopher Geyer, Pedro Felzenszwalb, Trevor Darrell
[ECCV](#) — *12th European Conference on Computer Vision*, 2012
- [1] Balanced Clustering for Content-based Image Browsing
Tim Althoff, Adrian Ulges, Andreas Dengel
[GI](#) — *Informatiktag 2011, Gesellschaft für Informatik*, 2011

Articles in peer-reviewed workshop proceedings

- [W4] Grand Challenges for Personal Informatics and AI
 Lena Mamykina, Daniel A. Epstein, Predrag Klasnja, Donna Sprujt-Metz, Jochen Meyer, Mary Czerwinski, **Tim Althoff**, Eun Kyoung Choe, Munmun De Choudhury, Brian Lim
[CHI](#) — *CHI Conference on Human Factors in Computing Systems Extended Abstracts*, 2022
- [W3] Leveraging Community and Author Context to Explain the Performance and Bias of Text-Based Deception Detection Models
 Galen Weld, Ellyn Ayton, **Tim Althoff**, Maria Glenski
[NAACL NLP4IF](#) — *NAACL WS on NLP4IF: Censorship, Disinformation, and Propaganda*, 2021
 🏆 **Best Paper Award**
- [W2] Learning Individualized Cardiovascular Responses from Large-scale Wearable Sensors Data
 Haraldur T. Hallgrímsson, Filip Jankovic, **Tim Althoff**, Luca Foschini
[NeurIPS ML4H](#) — *NeurIPS Workshop on Machine Learning for Health*, 2018
- [W1] Quantifying Dose Response Relationships Between Physical Activity and Health Using Propensity Scores
Tim Althoff, Rok Susic, Jennifer L. Hicks, Abby C. King, Scott L. Delp, Jure Leskovec
[NeurIPS ML4H](#) — *NeurIPS Workshop on Machine Learning for Health*, 2016







Articles under review

- [R7] Homekit2020: A Time Series Classification Benchmark for Influenza Prediction Using Wearable Devices
Mike A Merrill, Arinbjörn Kolbeinsson, Piyusha Gade, Ernesto Ramirez, Ludwig Schmidt, Luca Foschini, **Tim Althoff**
- [R6] Branch-Train-Merge: Embarrassingly Parallel Training of Expert Language Models
Margaret Li, Suchin Gururangan, Tim Dettmers, Mike Lewis, **Tim Althoff**, Noah A Smith, Luke Zettlemoyer
- [R5] Self-supervised Pretraining and Transfer Learning Enable Flu and COVID-19 Predictions in Small Mobile Sensing Datasets
Mike Merrill, **Tim Althoff**
- [R4] Natural Language Processing for Mental Health Interventions A Systematic Review
Matteo Malgaroli, Thomas Hull, James Zech, **Tim Althoff**
- [R3] Making Online Communities 'Better': A Taxonomy of Community Values on Reddit
Galen Weld, Amy Zhang, **Tim Althoff**
- [R2] Approximation and Progressive Display of Multiverse Analyses
Yang Liu, **Tim Althoff**, Jeffrey Heer
- [R1] Mapping User Engagement in Digital Psychotherapy: An Integrative Engagement Model
James M Zech, Morgan Johnson, Michael D Pullman, Thomas D Hull, **Tim Althoff**, Sean A Munson, Nicole Fridling, Boris Litvin, Jerilyn Wu, Patricia A Areán

Patents

- [P4] Sleep monitoring from implicitly collected computer interactions (2020)
Tim Althoff, Eric Horvitz, Ryen White
- [P3] Providing User-Interactive Graphical Timelines (2014)
Tim Althoff, Xin Luna Dong, Kevin Murphy, Safa Alai, Van Dang, Wei Zhang, Evgeniy Gabrilovich
- [P2] Adaptive Music and Video Recommendations (2013)
Tim Althoff, David Ross, Huazhong Ning, Mohamad Tarifi, Wes Cheng
- [P1] Automatic Music Video Generation Based on Structured Information (2012)
Tim Althoff, David Ross, Douglas Eck, Hrishikesh Aradhya

Awards

- Most Highly Rated Instructors in the Allen School 2020-2021** 7/2021
-  **Best Paper Award for Outstanding Analysis Paper – ICWSM** 6/2021
For *Political Bias and Factualness in News Sharing across more than 100,000 Online Communities* by ICWSM.
-  **Best Paper Award for Outstanding Study Design – ICWSM** 6/2021
For *The Effect of Moderation on Online Mental Health Conversations* by ICWSM.
-  **Best Paper Award – NAACL NLP4IF** 6/2021
For *Leveraging Community and Author Context to Explain the Performance and Bias of Text-Based Deception Detection Models* by NAACL WS on NLP4IF.
-  **Best Paper Award – WWW/WebConf** 4/2021
For *Towards Facilitating Empathic Conversations in Online Mental Health Support: A Reinforcement Learning Approach* by WWW/WebConf. Single award across all 1736 submissions.
- Nomination for 2020 Marsha L. Landolt Distinguished Graduate Mentor Award** 1/2020
University-wide award recognizing excellent faculty mentors
-  **2019 SIGKDD Doctoral Dissertation Award Winner ACM SIGKDD** 8/2019
For *Data Science for Human Well-being*
Recognizing excellent research in the field of data science, data mining and knowledge discovery
- Kavli Fellow Kavli Frontiers of Science** at National Academy of Sciences 4/2019
- eScience Fellow** University of Washington 3/2019
- Altmetric Top 100 Article 2017** 12/2017
For *Large-scale Physical Activity Data Reveal Worldwide Activity Inequality*
Among top 100 public attention scores of over 2 million tracked research outputs in 2017
-  **Best Paper Award – Clinical Natural Language Processing 2016** 8/2017
For *Natural Language Processing for Mental Health: Large Scale Discourse Analysis of Counseling*

	<i>Conversations by International Medical Informatics Association</i>	
	One of five selected among all research papers published in 2016	
	#1 most tweeted JMIR article 2016; #5 most tweeted JMIR article all time	1/2017
	<i>For Influence of Pokémon Go on Physical Activity: Study and Implications by Journal of Medical Internet Research (JMIR)</i>	
	Fellow <i>Digital Ecologies Research Partnership</i>	5/2014
Grants & gifts	(Sole) PI: National Science Foundation (NSF-IIS CAREER #2142794) <i>CAREER: Realizing the Potential of Behavioral Data Science for Population Health.</i> Total funded amount: \$599,173 (2022–2027).	10/2022
	(Sole) PI: Google, unrestricted gift (\$30,000)	10/2021
	(Sole) PI: Garvey Institute for Brain Health Solutions Innovation Grant. <i>Improving conversational best practices in online mental health support.</i> Total funded amount: \$100,000 (2021-2022).	6/2021
	(Sole) PI: Microsoft Research AI for Accessibility Grant. <i>Supporting Empathy Expression in Long-form Conversation.</i> Total funded amount: \$205,000 (2021-2022).	5/2021
	(Sole) PI: Office of Naval Research (ONR #N00014-21-1-2154) <i>Quantifying Effective Scalable Governance across Thousands of Online Communities.</i> Total funded amount: \$399,501 (2021–2023).	4/2021
	Co-PI: National Institute of Mental Health (NIH #R01MH125179) <i>Enhancing Engagement with Digital Mental Health Care.</i> Total funded amount: \$3,161,673; Personal share: \$695,567 (2021–2024).	1/2021
	Co-PI: National Science Foundation (NSF-CNS EAGER #2025022) <i>Partnering with Grab for Cross-ASEAN Regional Urban Insights.</i> Total funded amount: \$250,000 (2020–2022).	8/2020
	(Sole) PI: Microsoft Research AI for Accessibility Grant. <i>Human-AI Collaboration to Encourage Empathy in Text-Based Mental Health Support.</i> Total funded amount: \$200,000 (2020-2021).	5/2020
	(Sole) PI: Bill & Melinda Gates Foundation (INV-004841) <i>Data Science for Wearables and Public Health.</i> Total funded amount: \$600,000 (2020-2022).	3/2020
	(Sole) PI: Allen Institute for Artificial Intelligence (AI2), unrestricted gift (\$100,000)	3/2020
	(Sole) PI: Outreach, unrestricted gift (\$100,000)	3/2020
	(Sole) PI: Pacific Northwest National Laboratory (PNNL) (\$60,000)	1/2020
	Co-PI: National Science Foundation (NSF-IIS Large #1901386) <i>Analysis Engineering for Robust End-to-End Data Science.</i> Total funded amount: \$3,000,000; Personal share: \$786,096 (2019–2024).	9/2019
	(Sole) PI: Supportiv, unrestricted gift (\$50,000)	8/2019
	(Sole) PI: Adobe Data Science Research Award (\$50,000; 5/72 proposals funded)	3/2019
	(Sole) PI: Intel Research - Academic Cluster Computing Grant	2/2019
Fellowships	Stanford Graduate Fellowship, SAP Fellow (tuition + US\$41,700 p.a.) (awarded to top 3% of Stanford Ph.D. students)	9/2015 – 8/2018
	Stanford School of Engineering Fellowship (tuition + US\$39,400 p.a.)	9/2013 – 6/2014
	Fulbright Scholarship (US\$21,500; declined)	8/2011 – 5/2012
	UC Berkeley Scholarship from German Academic Exchange Service (€26,775)	8/2011 – 5/2012
	German National Merit Foundation Scholarship (awarded to top-ranked 0.25% of students nationwide; i.a. €3,600 p.a.)	7/2009 – 7/2013
Advising & mentoring	Ken Gu, Ph.D. student, U Washington	9/2021 – present
	Margaret Li, Ph.D. student, U Washington (co-advised w. Luke Zettlemoyer)	9/2020 – present
	Inna Lin, Ph.D. student (previously summer intern), U Washington	6/2020 – present
	Ashish Sharma, Ph.D. student, U Washington	9/2019 – present
	Mike Merrill, Ph.D. student, U Washington	9/2019 – present

Galen Weld, Ph.D. student, U Washington	7/2019 – 12/2022
Jina Suh, Ph.D. student, U Washington (co-advised with James Fogarty)	6/2019 – present
Jacopo Mocellin, B.S. student, University of Trento (undergraduate intern)	9/2021 – 1/2022
Ethan Hsu, M.S. student, Pennsylvania State University (intern)	7/2021 – 1/2022
Melih Yilmaz, Ph.D. student, U Washington (Ph.D. rotation)	9/2020 – 1/2021
Joy He-Yueya, B.S. student, U Washington (undergraduate research)	6/2019 – 12/2020
CRA Outstanding Undergraduate Researcher Award	
Ge Zhang, B.S. student, Peking University (undergraduate intern)	6/2019 – 9/2020
Remy Deshayes, M.S. student, Ecole Polytechnique (summer intern)	6/2020 – 9/2020
Peter West, Ph.D. student, U Washington (Ph.D. rotation)	6/2019 – 2/2020
Prakhar Agarwal, M.S. student, U Washington (research assistant)	2/2019 – 6/2019
Hamed Nilforoshan, B.S. student, Columbia University (undergraduate intern)	6/2017 – 6/2019
Boris Ivanovic, M.S. student, Stanford University (research assistant)	9/2016 – 6/2019
Chaitanya Asawa, B.S. student, Stanford University (senior project)	9/2016 – 4/2017
Pranav Jindal, M.S. student, Stanford University (research assistant)	9/2015 – 6/2016

Teaching experience

Instructor, University of Washington <i>Machine Learning for Big Data (CSE547)</i>	Winter 2023
Instructor, University of Washington <i>Data Science Capstone (CSE481DS)</i>	Fall 2022
Guest lecture, U. Washington <i>Integrative Experience in Data Science (CSE491)</i>	Spring 2022
Instructor, University of Washington <i>Machine Learning for Big Data (CSE590)</i>	Spring 2022
Instructor, University of Washington <i>Data Science Capstone (CSE481DS)</i>	Fall 2021
Guest lecture, U. Washington <i>Integrative Experience in Data Science (CSE491)</i>	Spring 2021
Guest lecture, Stanford <i>Big Data Methods for Behavioral, Social and Population Health</i>	Spring 2021
Guest lecture, Stanford <i>Big Data Methods for Behavioral, Social and Population Health</i>	Spring 2021
Co-Instructor, University of Washington <i>Natural Language Processing Seminar (NLP12)</i>	Spring 2021
Instructor, University of Washington <i>Data Science Capstone (CSE481DS)</i>	Fall 2020
Instructor, University of Washington <i>Machine Learning for Big Data (CSE547)</i>	Spring 2020
Guest lecture, University of Washington <i>Computing for Social Good (CSE599)</i>	Spring 2020
Co-Instructor, University of Washington <i>Big and Small Data in Health (CSE599H)</i>	Fall 2019
Instructor, University of Washington <i>Machine Learning for Big Data (CSE547)</i>	Spring 2019
Guest lecture, University of Washington <i>Adv. Methods in Data Science (INFO371)</i>	Spring 2019
Instructor, University of Washington <i>Data Science for Human Well-being (CSE599H)</i>	Winter 2018
Guest lecture, Stanford: <i>From Languages to Information (CS124)</i>	3/2016 & 3/2017
Guest lecture, Recruit Holdings of Japan at Stanford	3/2017
Guest lecture, Friedrich-Alexander-Universität Erlangen-Nürnberg	12/2016
Guest lecture, Stanford: <i>Mining Massive Datasets (CS246)</i>	3/2016

Selected invited talks

NeurIPS Panel on NLP in Healthcare, 2022	12/2022
Association for Behavioral and Cognitive Therapies, Annual Convention, NY, USA 2022	11/2022
Computer Science Department, U Michigan, Ann Arbor, MI, USA 2022	11/2022
Association for Behavioral and Cognitive Therapies, Annual Convention 2022	11/2022
Halicioglu Data Science Institute, UC San Diego, CA, USA 2022	10/2022
EuroScience Open Forum, Leiden, Netherlands 2022	7/2022
AI Keynote, LMU Munich, Germany 2022	5/2022
National Academies of Sciences, Engineering, and Medicine	4/2022
Keynote, Social NLP Workshop @ WebConf/WWW 2022	4/2022
Computer Science Department, Cornell University, NY, USA	4/2022
Computer Science Department, University of Michigan, Ann Arbor, MI, USA	4/2021
NeurIPS Machine Learning for Mobile Health	12/2020
Information Science Department, Cornell University, Ithaca, NY, USA	4/2020
Digital Mental Health Workshop, San Francisco, WA, USA	1/2020
The Human Factors and Ergonomics Society: Panel on Ubiquitous User Monitoring	10/2019
Keynote at 2nd KDD Workshop on Offline and Online Evaluation of Interactive Systems	8/2019
KDD Dissertation Award 2019	8/2019
Data Abuse Prevention Workshop, DARPA/ISAT, Arlington, VA, USA	8/2018

Schools of Computer Science and Information, University of Washington, Seattle, WA, USA	4/2018
Computer Science Department, University of Southern California, Los Angeles, CA, USA	4/2018
Computer Science Department, ETH Zurich, Zurich, CH	3/2018
Boston Children's Hospital, Harvard Medical School, Boston, MA, USA	3/2018
HCII, LTI, MLD, Carnegie Mellon University, Pittsburgh, PA, USA	3/2018
Computer Science Department, Columbia University, New York City, NY, USA	3/2018
Interactive Computing Department, Georgia Tech University, Atlanta, GA, USA	3/2018
Computer Science Department, UC San Diego, San Diego, CA, USA	2/2018
Computer Science Department, UC Los Angeles, Los Angeles, CA, USA	2/2018
CSE Department, University of Michigan, Ann Arbor, MI, USA	2/2018
Biomedical Data Science Department, Stanford University, Stanford, CA, USA	2/2018
School of Public Health, UC Berkeley, Berkeley, CA, USA	1/2018
Center for the Study of Language and Information (CSLI), Stanford University, CA, USA	6/2017
Max Planck Institute for Software Systems, Saarbrücken, Germany	12/2016
DFKI Deep Learning Competence Center, Kaiserslautern, Germany	12/2016
Adidas, Herzogenaurach, Germany	12/2016
Microsoft Health Intelligence Group, Redmond, WA, USA	6/2016
Intelligent Systems Lab, University of Amsterdam, Netherlands	1/2013
GI Informatiktage 2011, Bonn, Germany	3/2011

**Selected
community
service**

Outstanding Reviewer Award — *ACM Int'l Conference on Web-Search and Data Mining*, 2016

Co-organizer

Grand Challenges for Personal Informatics and AI, held at *CHI*, 2022

WWW/WebConf, Co-Chair for *The Web of Health Special Track*, 2021

Kavli Frontiers of Science, held at *National Academy of Sciences*, 2021

WWW/WebConf, Co-Chair for *Health on the Web Track*, 2020

Kavli Frontiers of Science, held at *National Academy of Sciences*, 2020

Workshop on Machine Learning for Health, held at *NeurIPS*, 2017

Workshop on Observational Studies Through Social Media, held at *ICWSM*, 2017

Advisory Panels

UNESCO, Fit For Life Global Associate Advisory Panel (GAAP), 2022

Centers for Disease Control and Prevention, Physical Activity Data Modernization Initiative, 2022

Editorial board member

Nature Scientific Data, 2018–present

(Senior) Program committee member

WWW — *Intl. World Wide Web Conference*, 2015–2020; Senior PC, 2021–2023

WSDM — *ACM Intl. Conf. on Web Search and Data Mining*, 2016–2018, Senior PC, 2020, 2023

KDD — *ACM SIGKDD Conf. on Knowledge Discovery & Data Mining*, 2015–2020, Senior PC, 2022

ICWSM — *Intl. AAAI Conference on Web and Social Media*, 2016–2018, Senior PC, 2021–2022

ACL — *Annual Meeting of the Association for Computational Linguistics*, Area Chair 2021

EMNLP — *Intl. ACL Conference on Empirical Methods in Natural Language Processing*, 2017–2018

MM — *ACM Intl. Conference on Multimedia*, 2014–2015

SocialNLP — *Intl. Workshop on Natural Language Processing for Social Media*, 2016–2017

EuroSymposium — *European Symposium on Societal Challenges in Computational Social Science*, 2017

HealthRecSys — *Intl. Workshop on Health Recommender Systems at ACM RecSys*, 2017

Journal reviewer

Nature — *Nature*, 2021

CellRM — *Cell Reports Medicine*, 2021, 2022

NatureHB — *Nature Human Behavior*, 2019

ScienceAdv — *Science Advances*, 2019

DS — *EPJ Data Science*, 2018

BMJ — *British Medical Journal*, 2019

S — *Sleep*, 2020

PR — *Psychotherapy Research*, 2020

JMIR — *Journal of Medical Internet Research (incl. Mental Health, Serious Games)*, 2016–2018

MS — Management Science, 2018

TIST — ACM Transactions on Intelligent Systems and Technology, 2016

TKDE — IEEE Transactions on Knowledge and Data Engineering, 2016

**Science
outreach &
selected
media
coverage
(of 400+)**

Selected articles in media

Medical News Today on <i>The connection between the food environment and healthy eating</i>	1/2022
Wall Street Journal on <i>Can Artificial Intelligence Replace Human Therapists?</i>	2/2021
Nature on <i>Studying the menstrual cycle in a male-dominated field</i>	2/2021
Stanford Human-Centered Artificial Intelligence on <i>Augmenting Psychotherapy with AI</i>	2/2021
GeekWire on <i>Pandemic data mining underscores the importance of social distancing [...]</i>	3/2020
GeekWire on <i>How data from smartphones [...] can inform us about human health [...]</i>	11/2019
Yahoo News on <i>KDD 2019 Honors Top Data Scientists [...]</i>	8/2019
The Globe and Mail on <i>Calls grow to redesign cities with women in mind</i>	4/2019
3M on <i>How creative science is helping make neighborhoods healthier</i>	10/2018
Nature Medicine on <i>Discovery cycle: Period-tracking apps offer new insights</i>	8/2018
New York Times on <i>A Crisis Line That Calms With Texting and Data</i>	12/2017
The Guardian on <i>'Paying to stay safe': why women don't walk as much as men</i>	10/2017
New York Times on <i>Jakarta, the City Where Nobody Wants to Walk</i>	8/2017
American Council on Science and Health on <i>Activity Inequality: What Does That Mean?</i>	8/2017
CNN on <i>Why are these countries the most obese? Walking is just one reason</i>	7/2017
The Washington Post on <i>Americans take fewer steps than people in U.K., new study reveals</i>	7/2017
CBS on <i>Daily step counts: Which countries are most active - and which are least?</i>	7/2017
TIME on <i>How Step Count Data Can Predict Obesity</i>	7/2017
WIRED on <i>The problem with fitness studies based on activity apps</i>	7/2017
Huffington Post on <i>How Smartphone Data Can Make Healthcare Smarter</i>	7/2017
NIH on <i>NIH-funded team uses smartphone data in global study of physical activity</i>	7/2017
Wall Street Journal on <i>Want to Exercise More? Try Screen Time</i>	12/2016
Forbes on <i>Study Finds Pokémon Go Does Get People Moving [...]</i>	12/2016
Science on <i>Pokémon Go could add extra years to your life</i>	10/2016
BBC on <i>Could playing Pokemon Go make you live longer?</i>	10/2016
CNN on <i>Pokemon Go could add 2.83 million years to users' lives</i>	10/2016
Reddit's front page on <i>Pokémon Go has added [...] 144 billion steps to US physical activity</i>	10/2016
The Economist on <i>Science on the web: Social net, working</i>	9/2014
Huffington Post on <i>Here's The Secret Formula for Getting Free Pizza, According to Science</i>	6/2014
ABC News on <i>How to Ask Strangers for a Free Pizza</i>	5/2014
MIT Technology Review on <i>Data Mining Reddit Posts Reveal How to Ask For a Favor</i>	5/2014

Selected video & radio interviews and coverage

Not Just Bikes (YouTube) on <i>I Don't Exercise (my city does that for me)</i>	5/2022
ABC News Australia (radio) on <i>Physical Activity Data Reveal Worldwide Activity Inequality</i>	7/2017
BBC (TV) on <i>Click (covering our research on NLP for crisis counseling and mental health)</i>	3/2017