Xuhai "Orson" Xu

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RESEARCH FOCUS

Drawing from human-computer interaction, applied AI/ML, and health, I develop **deployable behavior modeling algorithms** to monitor various health and well-being conditions using everyday sensor data and health records. Leveraging these models, I further design and deploy **intelligent intervention & interaction techniques** that help users achieve personal health and well-being goals and support health experts in making decisions.

EMPLOYMENT

Starting in Jan 2025	Columbia University - Tenure-Track Assistant Professor	
	Department of Biomedical Informatics	
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2023 – Present	Massachusetts Institute of Technology - Postdoctoral Associate	
	Department of Electrical Engineering and Computer Science	Advisors: Marzyeh Ghassemi

EDUCATION

2018 – 2023	University of Washington	
	Ph.D., Information School	Advisors: Anind K. Dey & Jennifer Mankoff
	Thesis: "Computational Support for Longitudinal V	Vell-Being"
	Distinguished Dissertation Award & Innovation of	and Technology Award
2014 – 2018	Tsinghua University	
	B.E. in Industrial Engineering (Major) & Computer S	Science (Minor)

Awards and Honors

Research Awards

2024	Innovation and Technology Award (Western Association of Graduate Schools, top 0.1%) Best Paper Award (ACM CHI, top 1%)
2023	Distinguished Paper Award (ACM UbiComp, top 1%) Distinguished Dissertation Award (University of Washington, top 0.5%) Best Paper Honorable Mention Award (ACM CHI, top 5%) Best Paper Nominee Award (IEEE VR, top 5%) Best Artifact Award (ACM W4A, top 1)
2022	Best Paper Honorable Mention Award (ACM CHI, top 5%) Best Paper Award (TPCI, top 3) Best Artifact Award (ACM ASSETS, top 3)
2020	Best Paper Honorable Mention Award (ACM CHI, top 5%)
2018	Best Paper Honorable Mention Award (ACM CHI, top 5%)

Scholorship & Other Honors

2023	Future Faculty Scholar (Cornell University)
2022	Gaetano Borriello Outstanding Student Award Winner (ACM UbiComp)
2018	Outstanding Undergraduate Awards (Tsinghua, top 0.5%) Annual Person of Dept. of Industrial Engineering (Tsinghua, top 1%) XieXin Scholarship (Tsinghua, top 1%)
2017	Outstanding Winner of 35th Challenge Cup (Leader, Tsinghua, top 2%) GaoTong Scholarship (Tsinghua, top 1%)
2016	DongshiDongfang Scholarship (Tsinghua, top 1%) Changhong Scholarship (Tsinghua, top 2%)

FUNDING AND GRANTS

Google Health (\$50,000 – Heart Rate and Well-Being)
Led the effort of fundraising, with the PhD advisor as PI.

Mote Poolity Lab Decemb Intern

Samsung Research America GRO Agreement (\$150,000 – Personalized Behavior Modeling)
Main Personnel; Contributed to the grant writing, with the PhD advisor as PI.

Professional Experience

2022	Developed an explainable AI Framework in AR [P.24]	Collabs: H. Benko, A. Yu
2021	Apple – Research Intern Developed a gesture customization framework [P.16]	Cupertino, CA Collabs: G. Laput, S. Hudson
2020	Samsung Research America – Research Intern Developed a pipeline for lung health detection by cough [P.11]	Mountain View, CA <i>Collabs</i> : J. Kuang, A. Gao
2019	Microsoft Research – Research Intern Deployed an large-scale explainable doc rec experiments [P.o] <i>Co</i>	Redmond, WA <i>llabs</i> : S. Dumais, A. Awadallah
2017	MIT Media Lab – Research Assistant Worked on breathing interaction and others in VR [P4]	Boston, MA Collabs: P. Maes, M. Sra

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SELECTED PUBLICATIONS

Conference & Journal Publications

- [P.36] Adiba Orzikulova, Han Xiao, Zhipeng Li, Yukang Yan, Yuntao Wang, Yuanchun Shi, Marzyeh Ghassemi, Sung-Ju Lee, Anind K. Dey, <u>Xuhai Xu</u>

 Time2Stop: Adaptive and Explainable Human-AI Loop for Smartphone Overuse Intervention

 CHI 2024 2024 ACM CHI Conference on Human Factors in Computing Systems
 - [P.35] Ruolan Wu, Chun Yu, Xiaole Pan, Yujia Liu, Ningning Zhang, Yue Fu, Yuhan Wang, Zhi Zheng, Li Chen, Qiaolei Jiang, Xuhai Xu, Yuanchun Shi MindShift: Leveraging LLMs for Mental-States-Based Problematic Smartphone Use Intervention
 CHI 2024 2024 ACM CHI Conference on Human Factors in Computing Systems
 - [P.34] Xuhai Xu, Bingshen Yao, Yuanzhe Dong, Saadia Gabriel, Hong Yu, James Hendler, Marzyeh Ghassemi, Anind K. Dey, Dakuo Wang Mental-LLM: Leveraging Large Language Models for Mental Health Prediction via Online Text Data

IMWUT 2024 - Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies

- [P.33] Ziqi Yang*, Xuhai Xu*, Bingsheng Yao, Shao Zhang, Ethan Rogers, Stephen Intille, Nawar Shara, Dakuo Wang. *Equally contributed.
 Talk2Care: Facilitating Asynchronous Patient-Provider Communication with Large-Language-Model IMWUT 2024 Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies
- Yue Fu, Sami Foell, <u>Xuhai Xu</u>, Alexis Hiniker
 From Text to Self: Users' Perception of AIMC Tools on Interpersonal Communication and Self
 CHI 2024 2024 ACM CHI Conference on Human Factors in Computing Systems
 [Best Paper Award]
 - [P.31] Zeyu Wang, Yuanchun Shi, Yuntao Wang, Yc Yao, Kun Yan, Yuhan Wang, Lei Ji, <u>Xuhai Xu</u>, Chun Yu G-VOILA: Gaze-Facilitated Information Querying in Daily Scenarios

 IMWUT 2024 Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies
 - [P.30] Zachary Englhardt, Chengqian Ma, Margaret Morris, Chun-Cheng Chang, Xuhai Xu, Lianhui Qin, Daniel McDuff, Xin Liu, Shwetak Patel, Vikram Iyer
 From Classification to Clinical Insights: Towards Analyzing and Reasoning About Mobile and Behavioral Health Data With Large Language Models
 IMWUT 2024 Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies
 - [P.29] Tao Lu, Hongxiao Zheng, Tianying Zhang, Xuhai Xu, Anhong Guo InteractOut: Leveraging Interaction Proxies as Input Manipulation Strategies for Reducing Smartphone Overuse
 - CHI 2024 2024 ACM CHI Conference on Human Factors in Computing Systems
 - [P.28] Shaoyue Wen, Songming Ping, Jialin Wang, Hai-Ning Liang, Xuhai Xu, Yukang Yan AdaptiveVoice: Cognitively Adaptive Voice Interface for Driving Assistance
 CHI 2024 2024 ACM CHI Conference on Human Factors in Computing Systems
 - [P.27] Shao Zhang, Jianing Yu, Xuhai Xu, Changchang Yin, Yuxuan Lu, Bingsheng Yao, Melanie Tory, Lace M. Padilla, Jefrey Caterino, Ping Zhang, Dakuo Wang Rethinking Human-AI Collaboration in Complex Medical Decision Making: A Case Study in Sepsis Diagnosis
 - CHI 2024 2024 ACM CHI Conference on Human Factors in Computing Systems
 - [P.26] Xun Qian, Tianyi Wang, Xuhai Xu, Tanya R. Jonker, Kashyap Todi Fast-Forward Reality: Authoring Error-Free Context-Aware Policies with Real-Time Unit Tests in Extended Reality
 - CHI 2024 2024 ACM CHI Conference on Human Factors in Computing Systems
- 2023 Yuhai Xu, Xin Liu, Han Zhang, Weichen Wang, Subgiya Nepal, Yasaman Sefidgar, Woosuk Seo, Kevin S. Kuehn, Jeremy Huckins, Margaret E. Morris, Paula S. Nurius, Eve A. Riskin, Shwetak Patel, Tim Althoff, Andrew Campell, Anind K. Dey, Jennifer Mankoff GLOBEM: Cross-Dataset Generalization of Longitudinal Human Behavior Modeling IMWUT 2023 Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies [Distinguished Paper Award]
 - **Xuhai Xu**, Mengjie Yu, Tanya R. Jonker, Kashyap Todi, Feiyu Lu, Xun Qian, João Marcelo Evangelista Belo, Tianyi Wang, Michelle Li, Aran Mun, Te-Yen Wu, Junxiao Shen, Ting Zhang, Narine Kokhlikyan, Fulton Wang, Paul Sorenson, Sophie Kahyun Kim, Hrvoje Benko XAIR: A Framework of Explainable AI in Augmented Reality

 CHI 2023 2023 ACM CHI Conference on Human Factors in Computing Systems

 [Best Paper Honorable Mention Award]

- [P.23] Yuntao Wang, Zirui Cheng, Xin Yi, Yan Kong, Xueyang Wang, Xuhai Xu, Yukang Yan, Chun Yu, Shwetak Patel, Yuanchun Shi
 Modeling the Trade-off of Privacy Preservation and Activity Recognition on Low-Resolution Images
 CHI 2023 2023 ACM CHI Conference on Human Factors in Computing Systems
- [P.22] Yuan Yao, Li Huang, Yi He, Zhijun Ma, <u>Xuhai Xu</u>, Haipeng Mi Reviewing and Reflecting Smart Home Research from the Human-Centered Perspective CHI 2023 – 2023 ACM CHI Conference on Human Factors in Computing Systems
- [P.21] David Creswell, Michael J. Tumminia, Stephen Price, Yasaman Sefidgar, Sheldon Cohen, Yiyi Ren, Jennifer Brown, Anind K. Dey, Janine M. Dutcher, Daniella Villalba, Jennifer Mankoff, <u>Xuhai Xu</u>, Kasey Creswell, Afsaneh Doryab, Stephen Mattingly, Aaron Striegel, David Hachen, Gonzalo Martinez, Marsha C. Lovett
 Nightly sleep duration predicts grade point average in the first year of college.

Nightly sleep duration predicts grade point average in the first year of college **PNAS** – Proceedings of the National Academy of Sciences of the United States of America

- [P.20] Yincheng Jin, Shibo Zhang, Yang Gao, Xuhai Xu, Seokmin Choi, Zhengxiong Li, Henry J Adler, Zhanpeng Jin SmartASL: "Point-of-Care" Comprehensive ASL Interpreter Using Wearables IMWUT 2023 – Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies
- ▼ [P.19] Ather Sharif, Aneesha Ramesh, Qianqian Yu, Trung-Anh H Nguyen, Xuhai Xu
 UnlockedMaps: A Web-Based Map for Visualizing Real-Time Accessibility of Rail Transit Stations
 W4A 2023 20th International Web for All Conference
 [Best Artifact Award]
- Yukang Yan, Haohua Liu, Yingtian Shi, Jingying Wang, Ruici Guo, Zisu Li, Chun Yu, Xuhai Xu, Yuntao Wang, Yuanchun Shi
 ConeSpeech: Exploring Directional Speech Interaction for Multi-Person Remote Communication in VR
 TVCG IEEE Transactions on Visualization and Computer Graphics
 [Best Paper Nominee Award]
- [P.17] Xuhai Xu, Han Zhang, Yasaman Sefidgar, Yiyi Ren, Xin Liu, Woosuk Seo, Jennifer Brown, Kevin Kuehn, Mike Merrill, Paula Nurius, Shwetak Patel, Tim Althoff, Margaret E. Morris, Eve Riskin, Jennifer Mankoff, Anind K. Dey
 GLOBEM Dataset: Multi-Year Datasets for Longitudinal Human Behavior Modeling Generalization
 NeurIPS 2022 36th Neural Information Processing Systems Track on Datasets & Benchmarks
 - Yuhai Xu, Jun Gong, Carolina Brum, Lilian Liang, Bongsoo Suh, Kumar Gupta, Yash Agarwal, Laurence Lindsey, RunchangKang, Behrooz Shahsavari, Tu Nguyen, Heriberto Nieto, Scott E. Hudson, Charlie Maalouf, Seyed Mousavi, Gierad Laput Enabling hand gesture customization on wrist-worn devices
 CHI 2022 2022 ACM CHI Conference on Human Factors in Computing Systems
 [Best Paper Honorable Mention Award]
 - [P.15] Xuhai Xu, Tianyuan Zou, Xiao Han, Yanzhang Li, Ruolin Wang, Tianyi Yuan, Yuntao Wang, Yuanchun Shi, Jennifer Mankoff, Anind K. Dey
 Typeout: Leveraging just-in-time self-affirmation for smartphone overuse reduction
 CHI 2022 2022 ACM CHI Conference on Human Factors in Computing Systems
 - [P.14] Yang Li, Dan Wu, Jie Zhang, <u>Xuhai Xu</u>, Yaxiong Xie, Tao Gu, Daqing Zhang DiverSense: Maximizing Wi-Fi Sensing Range Leveraging Signal Diversity <u>IMWUT 2022</u> – *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*
 - [P.13] Yincheng Jin, Yang Gao, <u>Xuhai Xu</u>, Seokmin Choi, Jiyang Li, Feng Liu, Zhengxiong Li, Zhanpeng Jin EarCommand: "Hearing" Your Silent Speech Commands In Ear

 IMWUT 2022 Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies

- [P.12] Xuhai Xu, Prerna Chikersal, Janine M. Dutcher, Yasaman S. Sefidgar, Woosuk Seo, Michael J. Tumminia, Daniella K. Villalba, Sheldon Cohen, J. David Creswell, Kasey Creswell, Afsaneh Doryab, Paula S. Nurius, Eve A. Riskin, Anind K. Dey, Jennifer Mankoff
 Leveraging Collaborative-Filtering for Personalized Behavior Modeling: A Case Study of Depression Detection among College Students
 - [P.11] Xuhai Xu, Ebrahim Nemati, Korosh Vatanparvar, Viswam Nathan, Tousif Ahmed, Mdmahbubur Rahman, Daniel Mccaffrey, Jilong Kuang, Jun Alex Gao Listen2Cough: Leveraging End-to-End Deep Learning Cough Detection Model to Enhance Lung Health Assessment Using Passively Sensed Audio IMWUT 2021 Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies

IMWUT 2021 - Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies

[P.10] Xuhai Xu, Jiahao Li, Tianyu Yuan, Liang He, Xin Liu, Yuntao Wang, Yuanchun Shi, Jennifer Mankoff, Anind K. Dey HulaMove: Using Commodity IMU for Waist Interaction

CHI 2021 – 2021 ACM CHI Conference on Human Factors in Computing Systems

- [P.9] Zihan Wu, Chun Yu, Xuhai Xu, Tong Wei, Tianyuan Zou, Ruolin Wang, Yuanchun Shi LightWrite: Teach Handwriting to The Visually Impaired with Only A Smartphone CHI 2021 – 2021 ACM CHI Conference on Human Factors in Computing Systems
- [P.8] Mingrui Zhang, Ruolin Wang, <u>Xuhai Xu</u>, Qisheng Li, Ather Sharif, Jacob Wobbrock Voicemoji: Emoji Entry Using Voice for Visually Impaired People <u>CHI 2021</u> – 2021 ACM CHI Conference on Human Factors in Computing Systems
- [P.7] Chen Liang, Chun Yu, Xiaoying Wei, <u>Xuhai Xu</u>, Yuntao Wang, Yuanchun Shi Auth+Track: Enabling Authentication Free Interaction on Smartphone by Continuous User Tracking CHI 2021 – 2021 ACM CHI Conference on Human Factors in Computing Systems
- [P.6] Yuzhou Zhuang, Yuntao Wang, Yukang Yan, Xuhai Xu, Yuanchun Shi ReflectTrack: Enabling 3D Acoustic Position Tracking Using Commodity Dual-Microphone Smartphones UIST 2021 – 34th Annual ACM Symposium on User Interface Software and Technology
- ▼ [P.5] <u>Xuhai Xu</u>, Jennifer Mankoff, Anind K. Dey
 Understanding Practices & Needs of Researchers in Human State Modeling by Passive Mobile Sensing
 TPCI 2021 CCF Transactions on Pervasive Computing and Interaction
 [Best Paper Award]
 - [P.4] Xin Liu, Ziheng Jiang, Josh Fromm, <u>Xuhai Xu</u>, Shwetak Patel, Daniel McDuff MetaPhys: Few-Shot Adaptation for Non-Contact Physiological Measurement CHIL 2021 – 2021 ACM Conference on Health, Inference, and Learning
 - [P.3] Margaret E. Morris, Kevin S. Kuehn, Jennifer Brown, Paula S. Nurius, Han Zhang, Yasaman S. Sefidgar, <u>Xuhai Xu</u>, Eve A. Riskin, Anind K. Dey, Sunny Consolvo, Jennifer Mankoff College from home during COVID-19: A mixed-methods study of heterogeneous experiences <u>PLOS ONE 2021</u> – *PLOS ONE*, *PLOS*
- [P.2] Xuhai Xu, Chun Yu, Yuntao Wang, Yuanchun Shi
 Recognizing Unintentional Touch on Interactive Tabletop
 IMWUT 2020 Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies
 - [P.1] Xuhai Xu, Haitian Shi, Xin Yi, Jiawen Liu, Yukang Yan, Yuanchun Shi, Alex Mariakakis, Jennifer Mankoff, Anind K. Dey
 EarBuddy: Enabling On-Face Interaction via Wireless Earbuds

CHI 2020 – 2020 ACM CHI Conference on Human Factors in Computing Systems

- [P.o] Xuhai Xu, Farnaz Jahanbakhsh, Farheen Omar, Bogdan Popp, Robert Rounthwaite, Ahmed Hassan Awadallah, Susan T. Dumais
 Understanding User Behavior For Document Recommendation
 WWW 2020 2020 The Web Conference
- Yukang Yan, Chun Yu, Wengrui Zheng, Ruining Tang, Xuhai Xu, Yuanchun Shi FrownOnError: Interrupting Responses from Smart Speakers by Facial Expressions CHI 2020 2020 ACM CHI Conference on Human Factors in Computing Systems [Best Paper Honorable Mention Award]
- [P.-2] Xuhai Xu, Prerna Chikersal, Afsaneh Doryab, Daniella K. Villalba, Janine M. Dutcher, Michael J. Tumminia, Tim Althoff, Sheldon Cohen, Kasey Creswell, J. David Creswell, Jennifer Mankoff, Anind K. Dey Leveraging Routine Behavior and Contextually-Filtered Features for Depression Detection among College Students
 - IMWUT 2019 Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies
 - [P.-3] Xuhai Xu, Chun Yu, Anind K. Dey, Jennifer Mankoff Clench Interaction: Novel Biting Input Techniques CHI 2019 – 2019 ACM CHI Conference on Human Factors in Computing Systems
- 2018 **6** [P.-4] Misha Sra*, <u>Xuhai Xu</u>*, Pattie Maes. *Equally contributed.

 BreathVR: Leveraging Breathing as a Directly Controlled Interface for Virtual Reality Games

 CHI 2018 2018 CHI Conference on Human Factors in Computing Systems

 [Best Paper Honorable Mention Award]
 - [P.-5] Xuhai Xu, Alexandru Dancu, Pattie Maes, Suranga Nanayakkara
 Hand Range Interface: Information Always at Hand with A Body-centric Mid-air Input Surface
 MobileHCI 2018 20th International Conference on HCI with Mobile Devices and Services
 - [P.-6] Mingyuan Zhong, Chun Yu, Qian Wang, Xuhai Xu, Yuanchun Shi ForceBoard: Subtle Text Entry Leveraging Pressure CHI 20182018 CHI Conference on Human Factors in Computing Systems

Posters & Extended Abstract & Workshop Papers

- [W.5] Subigya Nepal, Arvind Pillai, William Campbell, Talie Massachi, Eunsol Soul Choi, Xuhai Xu, Joanna Kuc, Jeremy Huckins, Jason Holden, Colin Depp, Nicholas Jacobson, Mary Czerwinski, Eric Granholm, Andrew Campbell
 Contextual AI Journaling: Integrating LLM and Time Series Behavioral Sensing Technology to Promote Self-Reflection and Well-Being Using the MindScape App
 CHI 2024 (LBW) 2024 CHI Conference on Human Factors in Computing Systems
- [W.4] Xuhai Xu

 Towards Future Health and Well-Being: Bridging Behavior Modeling and Intervention

 UIST 2022 (DC) 35th Annual ACM Symposium on User Interface Software and Technology
 - Y [W.3] Ather Sharif, Aneesha Ramesh, Trung-Anh Nguyen, Luna Chen, Kent Richard Zeng, Lanqing Hou, Xuhai Xu UnlockedMaps: Visualizing Real-Time Accessibility of Urban Rail Transit Using a Web-Based Map
 - ASSETS 2022 (Poster) 24th International ACM SIGACCESS Conference on Computers and Accessibility [Best Artifact Award]
 - [W.2] Tengxiang Zhang, Xin Zeng, Yinshuai Zhang, Xin Jiang, Xuhai Xu, Anind K. Dey, Yiqiang Chen BoldMove: Enabling IoT Device Control on Ubiquitous Touch Interfaces by Semantic Mapping CHI 2022 (LBW) – 2022 CHI Conference on Human Factors in Computing Systems

[W.1] Liang He, Ruolin Wang, Xuhai Xu

PneuFetch: Supporting Blind & Visually Impaired People to Fetch Nearby Object via Light Haptic Cues CHI 2020 (LBW) – 2020 CHI Conference on Human Factors in Computing Systems

ACADEMIC SERVICE

2020

Editor, Chair, Committee

2024 | **Associate Chair** ACM CHI 2024

Program Committee ACM WSDM 2024

Program Committee ACM TheWebConf 2024

Program Committee ACM FAccT 2024

Organizer ACM UbiComp 2024 – Mental Health Workshop (co-lead)

2023 Organizer ACM UbiComp 2023 – Mental Health Workshop (co-lead)

Judge ACM UbiComp 2023 – Student Challenge

Junior Chair AHLI ML4H 2023 – Research Roundtable

Program Committee ACM WSDM 2023

Program Committee ACM TheWebConf 2023

2022 **Organizing Committee** ACM UbiComp 2022 – Workshop Chair

Program Committee ACM WSDM 2022

Program Committee ACM TheWebConf 2022

2021 | Guest Editor ACM XRDS 2021 Fall Issue: Is Computing Toxic?

Organizing Committee ACM UbiComp 2021 – Web Chair

Program Committee ACM TheWebConf 2021

Session Chair ACM UbiComp 2021

2020 | **Associate Chair** ACM CHI 2020 Late Breaking Work

Program Committee ACM TheWebConf 2020

Program Committee ACM IUI 2020 – Posters and Demos

2019 **Program Committee** ACM TheWebConf 2019 – Health on the Web

Program Committee ACM Ubicomp 2019 – Workshop AppLens

Reviewer

HCI | ACM CHI; ACM UIST; ACM CSCW; ACM IUI; ACM FAccT;

International Journal of Human-Computer Interaction; ACM MobileHCI;

ACM DIS; ACM IDC; ACM TEI; ACM ISS; ACM VRST; IEEE ISMAR

*Poutstanding Reviewer Recognition – ACM CHI 2022, 2024; ACM UIST 2022, 2023

UbiComp | ACM IMWUT; IEEE THMS; IEEE Pervasive Computing;

Pervasive and Mobile Computing; Frontiers of Computer Science

Health | JAMIA; ACM HEALTH; AHLI ML4H; ACM CHIL; MLHC

ML & Data Mining | NeurIPS; ACM TheWebConf; ACM WSDM; ACM TKDD; AAAI

INVITED TALK

Columbia University 2024 University of California San Diego University of Southern California **University of Minnesota Purdue University** University of Virginia University of North Carolina at Chapel Hill University of Texas at Austin **Northeastern University University of Notre Dame** Virginia Tech **Imperial College of London National University of Singapore Harvard University** 2023 **UMich-Ann Arbor University of California Berkeley Massachusetts Institute of Technology Carnegie Mellon University** University of Illinois Urbana-Champaign **Brown University** Georgia Tech University of Washington – eScience Institute Google **Stanford University** Hong Kong University of Science and Technology 2022 **Cornell Tech** Georgia Tech **University of Chicago University at Buffalo Duke University** 2021 **Northwestern University** Tsinghua University - Academy of Arts & Design **Peking University Chinese Academy of Sciences Beihang University** Northwestern Polytechnical University University of Washington - Design, Use, Build Human, Technology, Future Forum

Tsinghua University – Dept of Computer Science & Technology
Zhejiang University
Fudan University
Zhejiang University of Technology

TEACHING EXPERIENCE

Instructor

2023 | INFO 340 – Client-Side Web Development, University of Washington Undergraduate-level course, 70 students

2020 – 2022 | GIX Summer – Statistics in HCI, University of Washington Undergraduate-level course, 30 students

Teaching Assistant

INFO 371: Advanced Methods in Data Science, University of Washington Undergraduate-level course, 50 students (Instructor: Jevin West)
 IMT 574: Machine Learning and Econometrics, University of Washington Graduate-level course, 30 students (Instructor: Chirag Shah)
 CS 274: Fundamentals of Programming in C++, Tsinghua University Undergraduate-level course, 200 students (Instructor: Li Zhen)

Guest Lecturer

Intelligent Behavior Intervention
In 6.S977 Ethical Machine Learning in Human Deployments, MIT

Bottom-up and Top-down Research Methods in Ubiquitous Computing
In INFO 300: Research Methods, University of Washington

Computational Longitudinal Well-being
In CSE 7170: Human-Centered Artificial Intelligence Systems, Northeastern University

Computational Mental Health
In CSE 99: Biometric Computing Research Seminar, University at Buffalo

Regularization in Machine Learning
In INFO 371: Advanced Methods in Data Science, University of Washington

MENTORING EXPERIENCE

Graduate Student

2022 – 2024	Adiba Orzikulova – junior KAIST CS PhD Supervising Adiba to lead a just-in-time adaptive intervention project for phone overuse.
2023 - 2024	Varsha Sandadi – MIT Master's Engineering Supervising Varsha on a human-AI interaction project for equitable mental health support.
2021 – 2024	Han Xiao – University of Calgary CS Master's Supervising Han on two intervention projects for smartphone overuse. [P.15]
2023 – 2024	Ziqi Yang – UMich iSchool Master's Supervising Ziqi on an LLM project for older patient-provider communication.
2022 – 2023	Shuning Zhang – junior Tsinghua CS PhD Supervising Shuning on a domain adaption project for behavior modeling.
2022 – 2023	Wujun Shi – Beijing University of Posts and Telecommunications CS Master's Supervising Wujun to lead a domain adaption project for behavior modeling.

2020 – 2022	Yanzhang Li – UW GIX Master's (currently at Tencent) Supervised Yanzhang on a phone-use intervention project. [P.15]
2020 – 2021	Victor Chen – Standford University CS Master's Supervised Victor on a project about mouth-gesture design.
2019 – 2020	Haitian Shi – Tsinghua Automobile Master's (Currently Founder of GraphOrigin) Supervised Haitian on an earbud interaction technique. [P.1]
2019 – 2020	David Dai – UW GIX Master's (currently at Airbnb) Supervised David on a longitudinal passive sensing data collection project.

Undergraduate Student

2023 - 2024	Reina Wang – MIT CS & Math Supervising Reina on projects about human-AI interaction for health.
2019 – 2023	Jiahao Li – University of Washington CS & Statistics (Currently at Uber) Supervising Jiahao on multiple projects in HCI and Ubicomp. [P.10]
2021 - 2023	Randy Zhang – University of Washington CS Supervising Randy on a systematic survey project on passive mobile sensing.
2022 - 2023	Yitong Li – University of Washington CS & Statistics Supervising Yitong on a systematic survey project on passive mobile sensing.
2020 – 2022	Tianyuan Zou – Tsinghua University CS (currently CS PhD at Tsinghua) Supervised Tianyuan on a phone-use intervention project. [P.15]
2020 - 2022	Tianyi Yuan – Tsinghua University Industrial Engineering (currently IE PhD at Tsinghua) Supervised Tianyi on a phone-use intervention project. [P.15]
2021 – 2022	Renad Sehat – University of WashingtonGlobal Health Supervised Renad on participant onboarding for a data collection project.
2021 - 2022	Yashasvi Joginapally – University of Washington Informatics Supervised Yashasvi on data checking for a longitudinal data collection project.
2021 – 2022	Matthew Hung – University of Washington Electric Engineering Supervised Matthew on data mining for a longitudinal data collection project.
2021 - 2022	Michelin Lin – University of Washington Bioengineering Supervised Michelin on data quality checking a passive sensing data collection project.
2020 – 2021	Wenjun Chen – University of Washington CS (currently at Meta) Supervised Wenjun on an education data-mining project.
2019 – 2020	Jacqueline Li – University of Washington Informatics (currently at Google) Supervised Jacqueline on app development for a passive sensing data collection project.
2022	Medha Kulkarni – Indiana University Purdue University Gabriela Vega – Peruvian University of Applied Sciences Hiwot Tadesse – Benedict College Dong Wang – Colgate University Led a 3-month workshop for students from underrepresented minority groups on a leg sensing project.

SELECTED PRESS

2024	AI pop-ups can help you stop doomscrolling on your phone New Scientist
2024	Xuhai Xu focused on developing an artificial intelligence intervention system UW Graduate School
2024	Researchers Test Generative AI's Utility for Accessibility Communication of ACM & UW News
2023	A new framework to design explainable AI for AR applications TechXplore – Featured Press
2023	The less college students sleep, the worse their grades, study finds The Washington Post
2023	Ph.D. Student Works to Unlock Devices' Insights UW iSchool News
2022	Riding public transit can be a gamble for people with disabilities Philadelphia Inquirer
2022	UnlockedMaps provides real-time accessibility info for urban rail transit in 6 metro areas UW News
2021	They are not far apart on the map – Helping China Henan province's people after torrential rains China Daily
2021	From 'distress' to 'unscathed' — mental health of UW students during spring 2020. UW News
2021	Dancing with Myself: HulaMove makes your digital devices submit to your every command through the power of your dance moves. Hackster.io News
2021	System using smartphone or computer cameras to measure pulse, respiration rate could help future personalized telehealth ACM Technews & UW News

REFERENCE

Anind K. Dey (doctoral advisor)

Professor

Dean of the Information School University of Washington

anind@uw.edu

Jennifer Mankoff (doctoral advisor)

Richard E. Ladner Endowed Professor Associate Director of the Paul G. Allen School

University of Washington

jmankoff@cs.washington.edu

Tim Althoff

Assistant Professor of the Paul G. Allen School

University of Washington

althoff@cs.washington.edu

Marzyeh Ghassemi (postdocoral advisor)

Assistant Professor in EECS and IMES

Vector Institute Canadian CIFAR AI Chair and Canada Research Chair

Massachusetts Institute of Technology

mghassem@csail.mit.edu

Andrew T. Campbell

Albert Bradley 1915 Third Century Professor

Dartmouth College

campbell@cs.dartmouth.edu

Shwetak Patel

Washington Research Foundation Entrepreneurship Endowed Professor

of the Paul G. Allen School and Department of EE

University of Washington

shwetak@cs.washington.edu