YUEXING HAO

CV Updated on 6/22/2025

Education

IvyPlus Exchange Ph.D Scholar. EECS, Massachusetts Institute of Technology   09/2024 to 12/2025
Laboratory for Information & Decision Systems (LIDS)

Ph.D. Human-Centered Design, Cornell University   09/2022 to 12/2025
Concentrations in AI, Patient-AI Collaboration, and Health Intelligence

M.S. Computer Science, Tufts University   09/2020 to 01/2022

B.A. Computer Science, Rutgers University-New Brunswick   09/2017 to 05/2020

Under Review Publications

1.   **Y. Hao**, K. Alhamoud, H. Zhang, H. Jeong, I. Puri, P. Torr, M. Schaekermann, A.D. Stern, M. Ghassemi. MedPAIR: Measuring Physicians and AI Relevance Alignment in Medical Question Answering. *arXiv* https://www.arxiv.org/abs/2505.24040 (*Under Review in Computer Science Conference*)

2.   **Y. Hao ***, Y. Huang *****, H. Zhang, C. Zhao, Z. Liang, P.P. Liang, L. Sun, Y. Zhao, S. Kalantari, X. Zhang, M. Ghassemi. Chasing Compute: The Role of Computing Resources in Publishing Foundation Model Research. (*Under Review in Science Journal*)

3.   **Y. Hao**, J. Holmes, J. Hobson, E. McKone, A. Bennett, D.K. Ebner, D.M. Routman, S. Shiraishi, N. Yu, S. Patel, C.L. Hallemeier, B.E. Ball, S. Kalantari, M. Ghassemi, M. Waddle, W. Liu. Research through Evaluation (RtE): Iteratively Developing Evaluations for Large Language Model-Generated Outputs in Healthcare. *arXiv*. (*Under Review in AI Conference*)

4.   **Y. Hao**, J. Holmes, M. Waddle, N. Yu, K. Vickers, H. Preston, D. Margolin, C. Loeckenhoff, A. Vashistha, M. Ghassemi, S. Kalantari, W. Liu. Defining the Border for LLM Applications in Healthcare: Developing an Expert-in-the-Loop LLM-Powered Chatbot for Prostate Cancer Patients. *arXiv* https://arxiv.org/abs/2409.19100. *(Under Review in HCI Conference)*

Published Publications

5.   **Y. Hao**, Z. Qiu, J. Holmes, C.E. Löckenhoff, W. Liu, M. Ghassemi, S. Kalantari. Large Language Model Integrations in Cancer Decision-Making: A Systematic Review and Meta-Analysis. *Npj Digital Medicine 2025*.

6.   **Y. Hao**. HUG Smart Sticker: Enhancing Personalized Intelligent Medication Management for Community-Dwelling Older Adults with an AIoT Intervention. *In Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '25), April 26-May 1, 2025, Yokohama, Japan.* https://doi.org/10.1145/3706599.3719286

7.   **Y. Hao**, J. Holmes, J. Hobson, A. Bennett, E. L. McKone, D. K. Ebner, D. M. Routman, S. Shiraishi, S. H.

*Equal authorship

Patel, N. Y. Yu, C. L. Hallemeier, B. E. Ball, M. Waddle, W. Liu, (2025). Retrospective Comparative Analysis of Prostate Cancer In-Basket Messages: Responses from Closed-Domain LLM vs. Clinical Teams. *Mayo Clinic Proceedings: Digital Health, 100198*. https://doi.org/10.1016/j.mcpdig.2025.100198

    a. Patent Filed. DR25-761: *Automatic In-Basket Message Response System based on a Retrieval Augmented Generation (RAG)-based Large Language Model (LLM)*

8. **Y. Hao** *, T. Yuan *, Y. Yang *, A. Gupta, M. Wieland, K. Birman, P. Basran. AI-Based Teat Shape and Skin Condition Prediction for Dairy Management. ArXiv. *The 3rd Deployable AI Workshop at AAAI-2025 (DAI), co-located at the AAAI 2025 conference*, February 25 - March 4, 2025, Philadelphia, Pennsylvania.

9. **Y. Hao**, C. Löckenhoff, H. Lee, J. Zwerling, S. Kalantari. The i-SDM Framework: Developing AI-based Tools in Shared Decision-Making for Cancer Treatment with Clinical Professionals. *Companion of the 2024 Computer-Supported Cooperative Work and Social Computing* (CSCW 24'). https://doi.org/10.1145/3678884.3681841

10. **Y. Hao.** Outcome First or Overview First? Optimizing Patient-Oriented Framework for Evidence-Based Healthcare Treatment Selections with XAI Tools. *Companion of the 2024 Computer-Supported Cooperative Work and Social Computing* (CSCW 24'). https://doi.org/10.1145/3678884.3681859

11. J. Feng, J. Liang, Z. Qiang, **Y. Hao**, X. Li, L. Li, Q. Chen, G. Liu, H. Wei. A hybrid stacked ensemble and Kernel SHAP-based model for intelligent cardiotocography classification and interpretability. BMC Med Inform Decis Mak 23, 273 (2023). https://doi.org/10.1186/s12911-023-02378-y

12. A. Gupta *, **Y. Hao** *, Y. Yang *, T. Yuan *, M. Wieland, P. Basran, K. Birman. Digital Twin-Driven Teat Localization and Shape Identification for Dairy Cow. *In the Thirty-Eighth AAAI Conference on Artificial Intelligence (AAAI-24) Student Poster Program.* https://ojs.aaai.org/index.php/AAAI/article/view/30450

13. **Y. Hao**, Z. Liu, B. Riter, S. Kalantari. Advancing Patient-Centered Shared Decision-Making with AI Systems for Older Adult Cancer Patients. *In Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24), May 11--16, 2024, Honolulu, HI, USA. https://doi.org/10.1145/3613904.3642353*

14. **Y. Hao**, Z. Liu, M. Safford, R. Tamimi, S. Kalantari. An Exploratory Study of Shared Decision-Making (SDM) for Older Adult Patients with Chronic Diseases. *In Companion Publication of the 2023 Conference on Computer Supported Cooperative Work and Social Computing (CSCW '23 Companion). Association for Computing Machinery, New York, NY, USA, 12–16. https://doi.org/10.1145/3584931.3607023*

15. Y. Qian, **Y. Hao***, K. Quan*, S. Yang*, Y. Zhao*, V. Kuleshov, F. Wang. Harnessing Biomedical Literature to Calibrate Clinicians' Trust in AI Decision Support Systems. *In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23). Association for Computing Machinery, New York, NY, USA, Article 14, 1–14. https://doi.org/10.1145/3544548.3581393*

16. Y. Fei, F. Chen, L. He, J. Chen, **Y. Hao**, X. Li, G. Liu, Q. Chen, L. Li, H. Wei. Intelligent classification of antenatal cardiotocography signals via multimodal bidirectional gated recurrent units. *Biomedical Signal Processing and Control, Volume 78, 2022, ISSN 1746-8094, https://doi.org/10.1016/j.bspc.2022.104008.*

17. **Y. Hao**, V. Bellotti. OOTOMS: Outcome-Oriented Techniques for User's Optimized Model Selections using Visualization Tools. *Workshop of Human-Centered Design of Symbiotic Hybrid Intelligence 2022,*

https://ii.tudelft.nl/humancenteredsymbioticHI/node/9.

18.   **Y. Hao**, M. Vaysiberg. Dynamic Strategies and Opponent Hands Estimation for Reinforcement Learning in Gin Rummy Game. *Intelligent Systems and Applications. IntelliSys 2021. Lecture Notes in Networks and Systems, vol 294. Springer, Cham.*

19.   **Y. Hao**, G. Shafer. Models for Predicting Global Plastic Waste. *Rutgers University Research Journal (RURJ), Spring 2021.*

20.   R. Cai, Z. Liang, B. Xu, Z. Li, **Y. Hao**, Y. Chen. TAG: Type Auxiliary Guiding for Comment Generation. *58th Association for Computational Linguistics (ACL), 2020.*

21.   R. Cai, W. Di, X. Chen, **Y. Hao**. Dual-Dropout Graph Convolutional Network for Predicting Synthetic Lethality in Human Cancers. *Bioinformatics, btaa211,2020.* https://digital-library.theiet.org/content/journals/10.1049/iet-ipr.2019.0716

22.   M. Wang, Y. Liang, L. Chen, **Y. Hao**, H. He, C. Li. Single Image Rain Removal with Reusing Original Input Squeeze-and-Excitation Network. *IET Image Processing, 2020.*

Working History

Research Intern   From 05/2025
Google Health   – Mountain View, CA

Human Frontier Collective Specialist   04/2025 to Current
Scale AI   – Remote

AI Research Intern   03/2024 to Current
Mayo Clinic Radiation Oncology Department   – Pheonix, AZ

Ph.D. Research Fellow   03/2022 to Current
Cornell University   – Ithaca, NY

Software Research Lead   03/2022 to 08/2023
Vita Innovations   – Ithaca, NY

Data Scientist Intern   09/2021 to 01/2022
Keva Health   – Lexington, MA

Graduate Teaching Assistant   09/2020 to 12/2021
Tufts Computer Science Department   – Medford, MA

Journal of Big Data: Theory and Practice (JBDTP) Assistant Editor   05/2020 to 09/2020
New Jersey Big Data Alliance (NJBDA)   - Remote

Selected Awards and Fundings (All Awards, $140k+)

★ **Research Funds/Fellowship**

2024-25 American Psychological Foundation K. Anders Ericsson Dissertation Research Grant	($10,000)
2025 PCCW Frank H.T. Rhodes Leadership Grant and Mission Grant	($11,000)
2024 Cornell University Departmental Thesis/Dissertation Research Grant	($1200)
OpenAI Researcher Access Program (API Credits)	($5,000)

★ **Competitions**

MIT Sandbox Innovation Fund Program (Fall 2024, Spring 2025)	($4,000)
2024 Best Oral Presentation at Symposium on AI in Veterinary Medicine (SAVY)	($500)
2024 NCWIT Aspirations in Computing Collegiate Honorable Mention Award	($2,500)
Second Prize of the 2023 IEEE ComSoc Student Competition	($1000)
The 2020 Interdisciplinary Contest in Modeling (ICM) Meritorious Winner	

★ **Travel Awards**

2023 Cornell Institute for Healthy Futures (CIHF) Research Grant	($500)
ACM SIGCHI 2023 Gary Marsden Travel Award	($2200)
Microsoft sponsored Knowledge Discovery and Data Mining (KDD) Travel Grant	($3000)

★ **Service Funds**

2025 Careers Beyond Academia/BEST Program	($1,000)
Cornell University Graduate and Professional Student Assembly Finance Commission Funding Fall 24', Spring 23' [†], Summer 23' [†], Fall 23'[†]	($7700)
Cornell University Human Centered Design Department [†]	($600)

Selected Press

★ **2025**

○ Kathy Hovis, Students win summer awards to work on startups, Cornell Chronicle

○ Equalize Startups, 2025 Cohort

○ Cornell Graduate School, Student Spotlight

★ **2024**

○ Seniorish Daily, Using Machines to Cure Disease: AI Enhances Doctor-Patient Chats for Older Cancer Patients, *Seniorish*

○ Gilbert + Tobin, Can AI empower patients? *gtlaw.com*, *Lexology.com*

○ Kristen Fischer, Report: AI tool could boost communication for older adults with cancer, *McKnight's Long-Term Care News*.

○ Emily Groff, AI may improve doctor-patient interactions for older adults with cancer, *Cornell Chronicle*

○ Ananya Gambiraopet, Life Sciences Technology Innovation Fellowship announces 2023-24 cohort. *Cornell Chronicle*

○ Entrepreneurship at Cornell 2023. W.E. Cornell Welcomes Fifth Cohort. *Eship.cornell*

★ **2023**
- **Y. Hao**, Z. Liu, S. Tang, H. Zhao, G. Guo. Pending US provision patent through Cornell Center for Technology Licensing (CTL) - HUG Intelligent Medication Management System (docket number 10677).
- CSCW 2023. Can Grandma Be Involved in Her Next Clinical Decision? *Medium.com*
- Marisa LaFalce, Human connection and collaboration are common threads among CHI presentations, *Human Centered Design*
- Frank Landymore, New AI Gives Doctors Advice on Patient's Ailments Like A Human Colleague, futurism.com
- Patricia Waldron, AI tool gains doctors' trust by giving advice like a colleague, *Cornell Chronicle*
- Cornell Graduate School, Eight Students Advancing to 3MT Finals, *Cornell Announcement*

★ **2022**
- Haining Zheng, The 5th International Workshop on Artificial Intelligence of Things (AIoT) at KDD 2022, *LinkedIn Newsletter*
- Laura Gallup, Teams take a crack at world food issues at digital ag hackathon, *Cornell Chronicle*

★ **2021**
- Weatherhead Center, Disrupted Lives: Linking, De-linking and the Infrastructures of Recovery, *Harvard University*
- Senior Exhibit, Story Illustration – From Texts to Images, *Rutgers Aresty Research Center*
- Department News, Rutgers undergraduate receives "Meritorious Performance" award in Modeling contest, *Rutgers University School of Arts and Sciences*

Invited Presentations

1.   **Guest Presentation** at 2024-25 workshop (Mar 2025) Designing for Sustainability MIT-HPI Joint Research Program. *Towards Digital Sustainability in Health Care: Developing Digital Health Products through Data-Driven User Insights*

2.   **Guest Lecture** at MIT AI for Society Group Seminar. *Objective Approaches in a Subjective Medical World*. (Mar 2025)

3.   **Guest Lecture** at Particle Therapy Co-Operative Group (PTCOG) Thoracic Subcommittee Quarterly Meeting. *Outlining the Borders for LLM Applications in Patient Education: Developing an Expert-in-the-Loop LLM-Powered Chatbot for Prostate Cancer Patient Education*. (Mar 2025)

4.   **Guest Lecture** at Mayo Clinic Center for Digital Health Deep Learning Machine Learning (DLML) Journal Club. *Retrospective Comparative Analysis of Prostate Cancer In-Basket Messages: Responses from Closed-Domain LLM vs. Clinical Teams*. (Feb 2025)

5.   **Guest Lecture** at MIT LIDS & Stats Seminar. *Outlining the Borders for LLM Applications in Healthcare*. (Nov 2024) link

6.   **Guest Lecture** at MIT CSAIL ML Tea Seminar. *Objective Approaches in a Subjective Medical World*. (Oct 2024) link

7.   **Guest Lecture** at MIT AI for Society Retreat. *Objective Approaches in a Subjective Medical World*. (Sep 2024)

8.   **Guest Lecture** at Particle Therapy Co-Operative Group (PTCOG) Thoracic Subcommittee Quarterly Meeting. *Retrospective Comparative Analysis of Prostate Cancer In-Basket Messages: Responses from*

Closed-Domain LLM vs. Clinical Teams. (Sep 2024)

9. **Guest Lecture** at Weill Cornell Medicine Division of Geriatrics and Palliative Medicine, hosted by Dr. Cary Reid. *Objective Approaches in a Subjective Medical World.* (Sep 2024)

10. **[Best Presentation] Speaker** at 2024 Symposium on Artificial Intelligence in Veterinary Medicine (SAVY). *AI-Based Cows' Teat Shape and Skin Condition Identification for Smart Dairy Farm.* Ithaca, NY. (April 2024)

11. **Keynote Speaker** at 2024 Greg Smith Palliative Care Summit, Hyde Park, NY. *Advancing Palliative Care with AI.* (Feb 2024)

12. **Guest Speaker** at Google Computer Science Research Mentorship Program (CSRMP), remote. *Explain and Enhance: Patient-Centered Learning With LLM from the Public Online Health Forum.* (Dec 2023)

13. **Guest Lecture** at Stanford University HCI Group Event, Stanford, CA. *AI Integration in Healthcare for Community-Dwelling Older Adults.* (Nov 2023)

14. **Panelist** at Women Entrepreneurship (W.E.) Cornell Role Model Conversation (Sep 2023)

15. **Guest Lecture** at Cornell Design User Experience with Technology Studio. *Improving College Students' Emotional Well-being through Virtual Environmental Problem-Solving Task: An Investigation of the Impact of Cognitive Style.* (Aug 2023)

16. **Poster Presentation** for New York Academy of Sciences: The New Wave of AI in Healthcare. *AI-Enhanced Patient-Centered Clinical Shared Decision-Making (SDM): A "Black Box" Study with Older Adults.* (May 2023)

17. **Speaker** for Women in Data Science (WiDS)-Stanford University Workshop. *Health Intelligence for Future - Building AI-Infused Clinical Decision Support Systems.* (Apr 2023)

18. **Seminar Presentation** for Cornell College of Human Ecology. *Bridging Gaps between Innovation and Impact: Enhancing Usability of Assistive Technology for Older Adults.* (Apr 2023)

19. **Guest Presentation** for Weill Cornell Payne Whitney Women's Program. *Health Intelligence for Future.* (Feb 2023)

20. **Guest Lecture** for Columbia Nursing Visualization Design Studio. *Health Intelligence for Future - Building AI-Infused Clinical Decision Support Systems.* (Dec, 2022)

21. **Short Talk** on KDD AIoT Workshop. *Agriverse: Agriculture Metaverse* (Aug, 2022)

22. **Guest Presentation** on ICML AI&Woman Event. *HamletEye: An AI-Powered Patient-Oriented Clinical Decision Framework Using Visualization Tools* (Jun, 2022)

23. **Poster Presentation** for the 5th Annual Primary Care & Hospital Medicine Innovations Symposium at Cornell University. (Feb, 2022)

24. **Poster Presentation** for the second annual Graduate Research Science and Technology Studies (Grists) at Harvard University. (Oct, 2021)

25. **Poster Presentation** for Women in Data Science-Cambridge Initiative (Mar, 2021)

Reviews

★ ACM (Association of Computing Machinery) 2024 Fairness, Accountability, and Transparency Conference (FAccT) Registration Co-Chair, Program Committee (PC) member

★ IEEE Transactions on Medical Imaging 2024 Paper Reviewer

★ IEEE VR 2024 Paper Reviewer

★ ACM CHI Conference on Human Factors in Computing Systems 2025, 2024 Late-Breaking Work (LBW) Area Chair, Paper Reviewer

★ IEEE VIS 2023 Alt.Vis Workshop Reviewer

★ ACM Conference On Computer-Supported Cooperative Work And Social Computing (CSCW) 26th ACM

Conference On Computer-Supported Cooperative Work And Social Computing (CSCW) 2023 Paper Reviewer, Posters Associate Chair, 2024 Paper Associate Chair

★ AMIA 2023 Annual Symposium Abstract Reviewer

Professional/Volunteer Services

❖ **2024**
➢ Expanding Your Horizons (EYH) at Cornell 2024 Chair
➢ Sigma Xi Scientific Research Honor Society Member (ID: 20249990735)
➢ Graduate Women International (GWI)-America Member (ID: 77618603)
➢ Association for Women in Science (AWIS) Member (ID: 2092)

❖ **2023**
➢ Graduate Women in Science (GWIS) Member
➢ IEEE Graduate Student Member (ID: 99480042)
➢ American Psychological Association (APA) Graduate Member (ID: C2304462639)
➢ Colman Inclusive Leadership Program
➢ Cornell University Human-Centered Design Graduate Student Association (HCD GSA) 2023-2024 President
➢ ACM Special Interest Group on Computer-Human Interaction (SIGCHI) Student Member (No. 2389305)
➢ Cornell Center for Health Equity (CCHEq) Member
➢ Society of Women Engineer (SWE) (ID: 2113201)

❖ **2022**
➢ Volunteer of Cayuga Medical Center Outpatient Care Coordination (Fall 2022)
➢ Organizer of 2022 Cornell + Miller Knoll Innovation Challenge for *Future Healthcare Solutions*. (Nov, 2022) Handbook

Mentorship

1. Mengye Zhu (Cornell M.S., Summer 25')
2. Cici Zhong (Cornell M.S., Summer 24')
3. Peer Mentor for Cornell MAC (Multicultural Academic Council) 2023-24 Mentoring Program
4. Grace Hopper Celebration (GHC) 2023 Open Source Day Mentors
5. Kexin Quan (UCSD Electrical & Computer Engineering M.S., now IS PhD at UIUC, Summer 22')
6. Zeyu Liu (Cornell M.S., Fall 22', Spring 23')
7. Sabrina Tang (Cornell Human Development B.S., Fall 22')

Teaching Experience

Cornell University Teaching Assistant
DEA 2203: StudioSHIFT (Spring 2024);
DEA 3030: Materials for Design and Sustainability (Spring 2024);

DEA 3500: The Ambient Environment (Fall 2023);
DEA 4025 - Design for Change: Imagining Decolonial Futures (Fall 2023);
Policy Meets Design: High-Impact Facilities of the 21st Century (Fall 2022);
Planning and Managing the Workplace: Evidence-Based Design (Fall 2022);
Healthcare Innovations (Spring 2022)

Tufts University Teaching Assistant
Introduction to Machine Learning and Data Mining (Spring, Fall 2021)
Deep Neural Network (Fall 2020)

Rutgers University Teaching Assistant
Data 101 (Spring 2020)
Introduction to Computer and Application (Fall 2019, Summer 2020)