

Zijian Ding (Jason)

PhD Student in HCI and ML with 5 years' research experience and publications in CHI, CSCW and UIST
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EDUCATION	Ph.D. in Information Studies , University of Maryland, College Park (UMD)	2021-2025 (Exp.)
	M.S in Electrical & Computer Eng , University of California, San Diego (UCSD)	2018-2020
	B.Eng in Electronic & Information Eng , The Hong Kong Polytechnic University (PolyU)	2014-2018
	Summer Visiting , Pembroke College, The University of Cambridge	2017
	Exchange , National University of Singapore (NUS)	2017
	Summer Visiting , The University of British Columbia (UBC)	2015

PUBLICATIONS **Full Conference Papers** (CHI and CSCW are the top 2 HCI venues ranked by [Google Scholar](#))

- [1] **Z. Ding**, E. Kamrah, M. Fuge, J. Chan. [Hidden title because of anonymity check]. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI'23)*, Hamburg, Germany, 2023. (Under Review)
- [2] **Z. Ding**, J. Kang, T.O.T. Ho, K.H. Wong, H.H. Fung, H. Meng, X. Ma. TalkTive: A Conversational Agent Using Backchannels to Engage Older Adults in Neurocognitive Disorders Screening . In *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI'22)*, New Orleans, USA, 2022.
- [3] S. Palani, **Z. Ding**, A. Nguyen, A. Chuang, S. MacNeil, S. P. Dow. CoNotate: Suggesting Queries Based on Notes Promotes Knowledge Discovery. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems (CHI'21)*, Online, 2021.
- [4] S. MacNeil, **Z. Ding**, A. Boone, A. B. Grubbs, S. P. Dow. Finding Place in a Design Space: Challenges for Supporting Community Design Efforts at Scale. In *Proceedings of the 2021 Conference of Computer Supported Cooperative Work (CSCW'21)*, Online, 2021.
- [5] S. MacNeil, **Z. Ding**, K. Quan, T. J. Parashos, Y. Sun, S. P. Dow. Framing Creative Work: Helping Novices Frame Better Problems through Interactive Scaffolding. In *Proceedings of the 2021 Conferences on Creativity and Cognition (C&C'21)*, Online, 2021.
- [6] R. Chang, Q. Wang, **Z. Ding**. Revolutionizing Urban Energy Planning: A Roadmap Towards City-level Energy Modelling in Australia. In *Proceedings of the International Conference on Construction Project Management and Construction Engineering (iCCPMCE'18)*, Sydney, Australia. (**Best Paper** 🏆).
- [7] Q. Wang, S. Zhang, D. Wei, **Z. Ding**. Additive Manufacturing (AM): A Revolutionized Power for Construction Industrialization. In *Proceedings of the 2018 International Conference on Construction and Real Estate Management (ICCREM'18)*, Charleston, USA. (**Best Paper** 🏆)

Short Conference Papers

- [8] S. MacNeil, **Z. Ding**, K. Quan, Z. Huang, K. Chen, S. P. Dow. ProbMap: Automatically Constructing Design Galleries through Feature Extraction and Semantic Clustering. In *Adjunct Proceedings of the 2021 Annual ACM Symposium on User Interface Software and Technology (UIST'21 Demo)*, Online, 2021.
- [9] S. Palani, **Z. Ding**, S. MacNeil, S. P. Dow. The "Active Search" Hypothesis: How Search Strategies Relate to Creative Learning. In *Proceedings of the 2021 Conference on Human Information Interaction and Retrieval (CHIIR'21 Poster)*, Online, 2021.

Journals (Non-HCI)

- [10] E. Kamrah, S. F. Ghoreishi, **Z. Ding**, J. Chan, M. Fuge. [Hidden title because of anonymity check]. *ASME Journal of Mechanical Design*. (Under Review)
- [11] S. Chang, Q. Wang, H. Hu, **Z. Ding**, H. Guo. An NNwC MPPT-Based Energy Supply Solution for

Sensor Nodes in Buildings. *Energies*, 12(1), 1-20.

- [12] R. Chang, Q. Wang, **Z. Ding**. How is the Energy Performance of Buildings Assessed in Australia?—A Comparison between four Evaluation Systems. *International Journal of Structural and Civil Engineering Research*, 8(2), 133-137.

SKILLS

Machine Learning & NLP pyTorch, TensorFlow, scikit-learn, NLTK, pandas, spaCy, Gensim

Qual. Methods Interview, Usability Test, Thematic Analysis, Affinity Diagram, Grounded Theory

UI & Design Figma, Photoshop, InDesign, AutoCad, Final Cut Pro, Paper Prototyping

Visualization D3.js, ggplot2, Matplotlib, Seaborn, Plotly

Programming Languages Python, Java, C/C++, R, Matlab, \LaTeX

Fullstack JavaScript, React.js, Vue.js, Redux, Flask, Node.js, Docker, MySQL, Firebase, HTML, CSS

RESEARCH EXPERIENCE

Ph.D. Research Intern (HCI), Human AI Innovation (HAI) team, Dataminr Inc. May 2022–Aug 2022
Supervised by [Dr. Alison Smith-Renner](#) and [Dr. Isabel Zhang](#)

- Studied human-AI interaction in the context of news headline generation; proposed and completed a research project with two studies in 11 weeks; prepare a first-authored paper submission to ACL'23
- Featured in Dataminr intern spotlight (the only research intern of 2022 cohort)

Graduate Research Assistant, HCI Lab, UMD College of Information Studies Jul 2021–Present
Supervised by [Prof. Joel Chan](#)

- Investigate the effect of interface presentations of examples on solution quality in both machine learning and creativity domains; lead the human-centered angle and submitted a first-authored full paper submission to CHI'23 and a journal paper to ASME Journal of Mechanical Design (JMD); presented the project as a talk & poster at 2022 HCIL annual symposium
- Study using GPT-3 to generate analogies to support design problem framing; prepare a full paper submission to CSCW'23 as the first author

Visiting Research Intern, Dept. of Computer Science and Engineering, HKUST Sep 2020–Sep 2021
Supervised by [Prof. Xiaojuan Ma](#)

- Led a research project developing an interface to embed backchannel into conversation and collect spoken language biomarkers for screening and monitoring neurocognitive disorders of the elderly; resulted in a first-authored full paper accepted to CHI'22
- Collaborated with [Prof. Helen Meng \(CUHK\)](#) on a University Grants Committee (UGC) Theme-Based Research Scheme with funding HK\$50M (US\$6.45M) [[Media appearance on IEEE Spectrum](#)]
- Worked with [Prof. Pascale Fung](#), [Prof. Bertram Shi](#) and [Prof. Qifeng Chen](#) (all from HKUST) on an ITF-Platform project with funding HK\$2.94M (US\$380K)

Graduate Research Assistant (Lab Assistant II), UCSD Design Lab Apr 2019–Jul 2021
Supervised by [Prof. Steven Dow](#) and [Prof. Stephen MacNeil](#) (now with Temple University)

- Explored how to engage, empower and scaffold novice community members in the design process; resulted in four full papers accepted to CHI'21, CSCW'21, C&C'21 and DIS'22, one CHIIR'21 short paper and one UIST'21 demo paper
- Conducted a case study of Canvas which uses a discussion forum to crowdsource problems and solutions from its own end-users; analyze 1412 ideas and 18,335 associated comments shared on Canvas
- Developed 4 web-based interventions that leverage machine learning models and computation to help guide and scaffold design novices to work on creative tasks such as exploratory search

Undergraduate Research Assistant, PolyU & Boud University Sep 2017–Aug 2018
Supervised by [Prof. Hung-Lin Chi](#) and [Prof. Ruidong Chang](#) (now with the University of Adelaide)

- Worked on 3 computer-aided civil engineering projects with 3 publications and co-led a successful 3D printing building project with US\$46,000 funds

Undergraduate Capstone Project, PolyU Apr 2017–May 2018
Supervised by [Prof. Francis C. M. Lau](#)

- Built a CV-based wireless water-meter reading system (Best 50 Final Year Projects Award in HK)

AWARDS (US\$89,650)	Dataminr intern spotlight , featured in Dataminr Intranet	2022
	UMD iSchool Dr. Dana Rotman Doctoral Student Travel Award (for CHI'22) , US\$1,550	2022
	UMD iSchool iStar , featured in Dean's monthly email to all iSchool faculty, staff, and students	2021
	UMD iSchool Dean's Fellowship , US\$10,000	2021
	UCSD ECE SRIP Fellowship , US\$5,000	2019
	Winner of the UCSD Design Lab Mobility Hub Designathon , US\$1,000	2019
	Best 40 FYP+ Award , US\$2,500	2019
	PolyU Entry Scholarship (Academic Excellence) , US\$61,500	2014–2018
	Best Paper Award , Intl. Conference on Construction and Real Estate Management	2018
	Best Paper Award , Intl. Conference on Construction Project Management & Construction Eng.	2018
	Best 50 Final Year Projects Award , US\$2,500	2018
	Bronze Award (IT Services) , 4th China College Students' "Internet+" Innov. & Entr. Competition	2018
	Bronze Award (Mfg) , 4th China College Students' "Internet+" Innov. & Entr. Competition	2018
	Hong Kong-Tsingtao Association Scholarship , US\$1,300	2018
	Best GPA Award , Dept. of Electronic and Information Engineering, PolyU	2017
	Twice on Dean Honors List , Faculty of Engineering, PolyU	2015–2017
	Wong Tit-shing Student Exchange Scholarship , US\$2,000	2017
	PolyU Student Exchange Scholarship , US\$2,300	2017
	FUNDS (US\$67,000)	Norman Design Fund , donated by Don Norman , US\$890
PolyU Student Entrepreneurial Proof-of-Concept Funding Scheme , US\$4,000		2019
PolyU International Competition & Conference Participation Scheme , US\$5,910		2018
Mingxi Youth Fund , US\$33,000		2018
PolyU Global Student Project Fund , US\$13,000		2018
PolyU Oxbridge (Oxford & Cambridge) Abroad Subsidy , US\$6,400		2017
PolyU Offshore WIE Sponsorship , US\$3,800		2016
TALKS & PRESENTATIONS	Talk & Poster at 2022 HCIL Annual symposium , University of Maryland	26 May 2022
	Computational Analogy: Supporting Creative Problem Reformulation with AI-generated Analogies	
	Talk & Poster at 2022 HCIL Annual symposium , University of Maryland	26 May 2022
	Exploring Presentation Interaction Effects on Mechanism of Inspiration from Diverse Examples	
	Paper Presentation at CHI 2022 , New Orleans, LA	2 May 2022
	TalkTive: A Conversational Agent Using Backchannels to Engage Older Adults in Neurocognitive Disorders Screening	
	Talk at UMD HCIL Brown Bag Series , Online	10 Feb 2022
	Computational Analogy: Supporting Creative Problem Reformulation with AI-generated Analogies	
	Demo at UIST 2021 , Online	12-13 Oct 2021
	Automatically Constructing Design Galleries through Feature Extraction and Semantic Clustering	
	Paper Presentation at C&C 2021 , Online	23 Jun 2021
	Framing Creative Work: Helping Novices Frame Better Problems through Interactive Scaffolding	
Paper Presentation at CHI 2021 , Online	12 May 2021	
CoNotate: Suggesting Queries Based on Notes Promotes Knowledge Discovery		
Poster at CHIIR 2021 , Online	16-18 Mar 2021	
The "Active Search" Hypothesis: How Search Strategies Relate to Creative Learning		
Poster at World Innovation & Entrepreneurship EXPO (WIEE) , Tongji University	19 May 2018	
Bright Building: Additive Construction for Post-Disaster Redevelopment		

	Poster at Forum "From Disaster Management to Disaster Risk Reduction" , PolyU Bright Building: Additive Construction for Post-Disaster Redevelopment	7 May 2018
	Talk at Luncheon Research Seminar , Dept of Building and Real Estate (BRE), PolyU Bright Building: Additive Construction for Post-Disaster Redevelopment	8 Mar 2018
PROFESSIONAL EXPERIENCE	Promotion Manager , UCSD Design Lab Design for San Diego (D4SD) Challenge	Jan–Sep 2020
	Database Engineer Intern , Moscow International Higher Business School (MIRBIS)	Jun–Aug 2016
MENTORING	<i>Undergraduate</i> Kexin Quan , UCSD Cognitive Science, co-authored 2 papers	Apr 2020–May 2021
VOLUNTEER SERVICE	Program Organizer , D4SD Community Design Jam, San Diego Design Week 2021	8 Sep 2021
	Panelist , Professional Development Speaker Session, Hong Kong-Tsingtao Association	10 Apr 2021
	IT Advisor (prev. IT Secretary) , PolyU Living & Learning Communities–EHKC	Dec 2015–Dec 2017
	VP (prev. External Secretary) , PolyU Living & Learning Communities–PDC	Sep 2015–Apr 2017
	Conference Host , Asian Venture Philanthropy Network (AVPN) Conference 2016	May 2016
MEDIA APPEARANCES	Interview "UMD iSchool iStar Spotlight" , 2021.	
	Alumni Sharing "PolyU Helps Me Establish 3 Pillars of Research Exploration" (in Chinese), 2020.	
	Interview "How to Make the Most of Your University Experience?" 43,600+ views, 2019.	
	Departmental Newsletter "Best Paper in 2018 ICCREM" (on page 1), 2018.	
REFERENCES	Academia Prof. Joel Chan , Assistant Professor, University of Maryland, College Park (UMD) Prof. Steven Dow , Associate Professor, University of California, San Diego (UCSD) Prof. Stephen MacNeil , Assistant Professor, Temple University Prof. Xiaojuan Ma , Associate Professor, Hong Kong University of Science and Technology (HKUST) Prof. Helen Meng , Patrick Huen Wing Ming Professor, The Chinese University of Hong Kong (CUHK)	
	Industry Dr. Alison Renner , Senior Research Scientist & Manager, Human AI Innovation Team, Dataminr Inc. Dr. Isabel Zhang , Senior Research Scientist, Human AI Innovation Team, Dataminr Inc.	