

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**, A. Smith-Renner, W. Zhang, J. R. Tetreault, A. James. Harnessing the Power of LLMs: Evaluating Human-AI Interaction through the Lens of News Headline Generation. (Submitted to the 6th ACM Conference on Fairness, Accountability, and Transparency 2023)
- [2] **Z. Ding**, A. Srinivasan, S. MacNeil, J. Chan. Fluid Transformers and Creative Analogies: Exploring Large Language Models' Capacity for Augmenting Cross-Domain Analogical Creativity. (Accepted by the 15th ACM Conference on Creativity and Cognition 2023)
- [3] S. MacNeil, Z. Huang, K. Chen, **Z. Ding**, A. Yu, S. P. Dow. Freeform Templates: combining Freeform Curation with Structured Templates. (Accepted by the 15th ACM Conference on Creativity and Cognition 2023)
- [4] **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.
- [5] 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.
- [6] 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.
- [7] 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 ACM Conferences on Creativity and Cognition (C&C'21)*, Online, 2021.
- [8] 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** 🏆).
- [9] 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 (Posters, Demos, Workshops)

- [10] **Z. Ding**, J. Chan. Mapping the Design Space of Interactions in Human-AI Text Co-creation Tasks. In CHI 2023 Workshop on Generative AI and HCI (CHI'23 Workshop), Hamburg, Germany, 2023.
- [11] 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.

- [12] 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)

- [13] E. Kamrah, S. F. Ghoreishi, **Z. Ding**, J. Chan, M. Fuge. [Hidden title because of anonymity check]. *ASME Journal of Mechanical Design*. (Under Review)
- [14] 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.
- [15] 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

INDUSTRY

Research Intern, EPIC, Microsoft Research Redmond

May 2023–Aug 2023

RESEARCH

Supervised by [Dr. Nathalie Henry Riche](#)

EXPERIENCE

- Studied integrating large language model into Microsoft Office

Research Intern, 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 with Large Language Model (LLM); proposed and completed a research project with two studies in 11 weeks; submitted the work as a first-authored paper submission to FAccT'23
- Featured in Dataminr intern spotlight (the only research intern of 2022 cohort)

ACADEMIC

Graduate Research Assistant, HCI Lab, UMD College of Information Studies

Jul 2021–Present

RESEARCH

Supervised by [Prof. Joel Chan](#)

EXPERIENCE

- 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 C&C'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	2019
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

Presentation at AI Org Meeting , Dataminr Inc.	9 Aug 2022
Harnessing the Power of LLMs: Evaluating Human-AI Interaction through the Lens of News Headline Generation	
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	7 May 2018
	Bright Building: Additive Construction for Post-Disaster Redevelopment	
	Talk at Luncheon Research Seminar , Dept of Building and Real Estate (BRE), PolyU	8 Mar 2018
	Bright Building: Additive Construction for Post-Disaster Redevelopment	
ACADEMIC SERVICES	Workshop Organizer , Riding the LPM Wave: The Future of Academic Research in the Era of Large Pre-trained Models, Hamburg, University of Maryland College Park	12 May 2023
	Session Chair , SIGCSE Technical Symposium (TS) 2023, Toronto, Canada	16 March 2023
	Reviewer , ACM Creativity & Cognition (C&C)	2023
MEMBERSHIPS	Member of Organization Teams & Technology Society (OTTRS); Member of Pembroke College Circle, the University of Cambridge; Member of Association for Computing Machinery (ACM).	
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	Available upon request.	