

Zijian Ding (Jason)

PhD Student in HCI and ML with three 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-Present 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
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	Graduate Research Assistant , HCI Lab, UMD College of Information Studies Jul 2021–Present Supervised by Prof. Joel Chan <ul style="list-style-type: none">Investigate the effect of diversity on optimize solutions in both mathematics and creativity domains; lead the human-centered angle and prepare a first-authored full paper submission to C&C'22 Visiting Research Intern , Dept. of Computer Science and Engineering, HKUST Sep 2020–Sep 2021 Supervised by Prof. Xiaojuan Ma <ul style="list-style-type: none">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'22Collaborated 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) <ul style="list-style-type: none">Explored how to engage, empower and scaffold novice community members in the design process; resulted in three full papers accepted to CHI'21, CSCW'21 and C&C'21, one CHIIR'21 short paper and one UIST'21 demo paper, and one paper in preparationConducted 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 CanvasDeveloped 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 Dr. Ruidong Chang (now with the University of Adelaide) <ul style="list-style-type: none">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 <ul style="list-style-type: none">Built a CV-based wireless water-meter reading system (Best 50 Final Year Projects Award in HK)

PUBLICATIONS **Conference Papers** (CHI, CSCW and UIST are the most premier HCI venues)

- [1] **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. (Accepted with minor revision)
- [2] 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.
- [3] 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.
- [4] 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.
- [5] 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.
- [6] 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.
- [7] 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 🏆)**.
- [8] 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 🏆)**

Journals

- [1] 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.
- [2] 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.

AWARDS
(US\$88,100)

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)	Don Norman Design Fund , 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	Demo at UIST 2021 , Online	12-13 Oct 2021
	Automatically Constructing Design Galleries through Feature Extraction and Semantic Clustering	
	Presentation at C&C 2021 , Online	23 Jun 2021
	Framing Creative Work: Helping Novices Frame Better Problems through Interactive Scaffolding	
	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	
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 (B.S.) Major in Cognitive Science (ML & Neural Computation), UCSD	Apr 2020–Present
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 "How to Make the Most of Your University Experience?" 43,600+ views on YouTube	
	Departmental Newsletter "Best Paper in 2018 ICCREM" (on page 1)	
REFERENCES	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)	