(April) Yi Wang

Ph.D. Candidate in School of Information, University of Michigan

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Ann Arbor, MI 48109

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(*updated Nov 2021*)

Research Interests

Human-Computer Interaction; Programming Support; Collaborative Data Science

Education

09/2018 – present **University of Michigan**
Ann Arbor, MI PhD in Information Science
Advisors: Steve Oney and Christopher Brooks

09/2016 – 07/2018 **Simon Fraser University**
Burnaby, Canada MSc in Computer Science (thesis T.01 below)
Advisor: Parmit Chilana
Committee: Philip Guo and Lyn Bartram

09/2013 – 07/2016 **Zhejiang University**
Hangzhou, China B.Eng in the College of Computer Science & Chu Kochen Honors College

Professional Experience

09/2018 – present **School of Information, University of Michigan**
Ann Arbor, MI Graduate Student Researcher

05/2021 – 08/2021 **Microsoft Research**
Redmond, WA Research Summer Intern at the Visualization and Interactive Data Analytics (VIDA) Group

05/2020 – 08/2020 **IBM Research**
Cambridge, MA Research Summer Intern at the AI Experience Group

09/2016 – 07/2018 **School of Computing Science, Simon Fraser University**
Burnaby, Canada Graduate Student Researcher

01/2015 – 04/2015 **School of Interactive Arts and Technology, Simon Fraser University**
Burnaby, Canada Undergraduate Student Researcher

Publications

Labels:
- *honorable mention for best paper award*
- *best paper award*

Heavily-reviewed Conference Papers (C) and Journals (J)

C.12 **April Yi Wang**, Will Epperson, Robert DeLine, and Steven M. Drucker. Diff in the Loop: Supporting Data Comparison in Exploratory Data Analysis *In Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2022)*, to appear

J.11 **April Yi Wang***, Dakuo Wang*, Jaimie Drozdal, Michael Muller, Soya Park, Justin D. Weisz, Xuye Liu, Lingfei Wu, and Casey Dugan. Documentation Matters: Human-Centered AI System to Assist Data Science Code Documentation in Computational Notebooks *ACM Transactions on Computer-Human Interaction (TOCHI 2021)*, to appear

C.10 Xuye Liu*, Dakuo Wang*, **April Yi Wang**, Yufang Hou, and Lingfei Wu. HAConvGNN: Hierarchical Attention Based Convolutional Graph Neural Network for Code Documentation Generation in Jupyter Notebooks *In Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing: Findings (EMNLP 2021)*, to appear

J.09 **April Yi Wang***, Yan Chen*, John Chung, Christopher Brooks, and Steve Oney. PuzzleMe: Leveraging Peer Assessment for In-Class Programming Exercises. *In Proceedings of the ACM : Human-Computer Interaction, Computer-Supported Cooperative Work and Social Computing (CSCW 2021)*

J.08 David Piorkowski, Soya Park, **April Yi Wang**, Dakuo Wang, Michael Muller, and Felix Portnoy. How AI Developers Overcome Communication Challenges in a Multidisciplinary Team: A Case Study. *In Proceedings of the ACM : Human-Computer Interaction, Computer-Supported Cooperative Work and Social Computing (CSCW 2021)*

C.07 Soya Park, **April Yi Wang**, Ban Kawas, Q. Vera Liao, David Piorkowski, and Marina Danilevsky. Facilitating knowledge sharing from domain experts to data scientists for building NLP models. *In Proceedings of the 26th International Conference on Intelligent User Interfaces (IUI 2021)*

C.06 Yan Chen, Jaylin Herskovitz, Gabriel Matute, **April Wang**, Sang Won Lee, and Steve Oney. EdCode: Towards Personalized Support at Scale for Remote Assistance in CS Education. *In Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC 2020)*

C.05 **April Yi Wang**, Zihan Wu, Christopher Brooks and Steve Oney. Callisto: Capturing the "Why" by Connecting Conversations with Computational Narratives. *In Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2020)*

J.04 **April Yi Wang**, Anant Mittal, Christopher Brooks and Steve Oney. How Data Scientists Use Computational Notebooks for Real-Time Collaboration. *In Proceedings of the ACM : Human-Computer Interaction, Computer-Supported Cooperative Work and Social Computing (CSCW 2019)*

C.03 **April Yi Wang** and Parmit K. Chilana. Designing Curated Conversation-Driven Explanations for Communicating Complex Technical Concepts. *In Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC 2019)*

C.02 **April Yi Wang**, Ryan Mitts, Philip J. Guo and Parmit K. Chilana. Mismatch of Expectations: How Modern Learning Resources Fail Conversational Programmers. *In Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2018)*

J.01 Laton Vermette, Shruti Dembla, **April Yi Wang**, Joanna McGrenere and Parmit K. Chilana. (2018) Social CheatSheet: An Interactive Community-Curated Information Overlay for Web Applications. *In Proceedings of the ACM: Human-Computer Interaction (1,1), Computer-Supported Cooperative Work and Social Computing (CSCW 2018)*

Refereed Posters (P), Workshops (W), and Demos (D)

D.05 **April Yi Wang**, Dakuo Wang, Xuye Liu, and Lingfei Wu. Graph-Augmented Code Summarization in Computational Notebooks. *In Proceedings of 30th International Joint Conferences on Artificial Intelligence (IJCAI 2021)*

P.04 **April Y. Wang**, Dakuo Wang, Jaimie Drozdal, Xuye Liu, Soya Park, Steve Oney and Christopher Brooks. (2021) What Makes a Well-Documented Notebook? A Case Study of Data Scientists' Documentation Practices in Kaggle. *In CHI Conference on Human Factors in Computing Systems Extended Abstracts (CHI 2021 Extended Abstracts)*

W.03 Michael Muller, **April Yi Wang**, Steven I. Ross, Justin D. Weisz, Mayank Agarwal, Kartik Talamadupula, Stephanie Houde, Fernando Martinez, John Richards, Jaimie Drozdal, Xuye Liu, David Piorkowski and Dakuo Wang. (2021) How Data Scientists Improve Generated Code Documentation in Jupyter Notebooks *Workshop on Human-AI Co-Creation with Generative Models at ACM Conference on Intelligent User Interface (IUI 2021)*

W.02 **April Y. Wang**, Steve Oney and Christopher Brooks. (2019) Redesigning Notebooks for Data Science Education. *Workshop on Human-Centered Study of Data Science Work Practices at ACM Conference on Human Factors in Computing Systems (CHI 2019)*

P.01 **April Y. Wang** and Parmit K. Chilana. (2017) Investigating Learning Strategies of Conversational Programmers. *International Conference on Computing Education Research (ICER 2017 Posters)*

Theses (T)

T.01 **April Yi Wang.** (2018). Understanding and Lowering the Learning Barriers for Conversational Programmers. *SFU M.Sc Thesis*, Burnaby, Canada.

Grants

04/2021 **Rackham Graduate Student Research Grant**
$1,500 Sponsor: Rackham Graduate School, University of Michigan

2018 – present **Rackham Graduate School Student Travel Grant**
Sponsor: Rackham Graduate School, University of Michigan

2018 – present **UMSI Conference Travel Grant**
Sponsor: School of Information, University of Michigan

Awards

2019 – 2021 **Special Recognitions for Outstanding Reviews**
The ACM Conference on Computer-Supported Cooperative Work and Social Computing
The ACM CHI Conference on Human Factors in Computing Systems

08/2020 **Best Short Paper Award**
The IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC 2020) (C.06)

04/2020 **Honourable Mention Award**
The ACM CHI Conference on Human Factors in Computing Systems (CHI 2020) (C.05)

11/2019 **Best Paper Award**
The ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2019) (J.04)

04/2019 **UMSI Pre-candidacy Project Milestone Distinction Award**
Awarded by the University of Michigan School of Information (top 10%)

04/2018 **Honourable Mention Award**
The ACM CHI Conference on Human Factors in Computing Systems (CHI 2018) (C.02)

01/2018 **Computing Science Graduate Fellowship**
Awarded by Simon Fraser University

09/2016 **Computing Science Graduate Fellowship**
Awarded by Simon Fraser University

09/2015 **Scholarship for Excellence in Internship**
Awarded by Zhejiang University

09/2014 **Scholarship for Excellence in Academic Performance**
Awarded by Zhejiang University

Service

Program Committee

2022 International Conference on Learning Analytics And Knowledge (LAK)

2021 ACM Conference on Human Factors in Computing Systems (CHI), Late Breaking Work

2020 Artificial Intelligence in Education(AIED)

Peer Reviewing

Labels:
🎗 *Special Recognitions for Outstanding Reviews*

2019 – 2021 ACM Conference on Human Factors in Computing Systems (CHI) 🎗

2019 – 2021 ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW) 🎗

2020 – 2021 ACM Symposium on User Interface Software and Technology (UIST)

2021 ACM Transactions on Computer-Human Interaction (TOCHI)

2020 – 2021 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC)

2020 ACM Transactions on Interactive Intelligent Systems (TiiS)

2019 ACM Conference on Tangible, Embedded, and Embodied Interactions (TEI)

2019 – 2020 Artificial Intelligence in Education(AIED)

2022 International Conference on Learning Analytics And Knowledge (LAK)

Operations Committee

2021 ACM CHI session chair

2021 Conference on Neural Information Processing Systems(NeurIPS) student volunteer

2019, 2021 ACM CHI student volunteer

2020 ACM UIST student volunteer

Teaching

University of Michigan

Winter 2021 Graduate Student Instructor – SI 579 (Building Interactive Applications)

Simon Fraser University

Spring 2018 Teaching Assistant – CMPT 363 (User Interface Design)

Spring 2017 Teaching Assistant – CMPT 363 (User Interface Design)

Patent

08/2020 Dakuo Wang, Lingfei Wu, Xuye Liu, **April Yi Wang**, Chuang Gan, Jing Xu, Xue Ying Zhang, Jun Wang, Jing James Xu. Learning-Based Automated Machine Learning Code Annotation with Graph Neural Network. *IBM. Filed 2020. 17/088018.*

08/2020 Dakuo Wang, Lingfei Wu, **April Yi Wang**, Xuye Liu, Chuang Gan, Si Er Han, Bei Chen, Ji Hui Yang. Learning-Based Automated Machine Learning Code Annotation in Computational Notebooks. *IBM. Filed 2020. 17/069402.*

References

Steve Oney | **soney@umich.edu**
Assistant Professor of School of Information at the University of Michigan

Christopher Brooks | **brooksch@umich.edu**
Assistant Professor of School of Information at the University of Michigan

Dakuo Wang | **dakuo.wang@ibm.com**
Research Team Lead at IBM Research AI