

(April) Yi Wang

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

3376 North Quadrangle
105 South State Street
Ann Arbor, MI 48109

<https://aprilwang.me>
aprilww@umich.edu
(updated Jan 2022)

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.13 Will Epperson, **April Yi Wang**, Robert DeLine, and Steven M. Drucker. **Strategies for Reuse and Sharing among Data Scientists in Software Teams** In *Proceedings of the ACM/IEEE 44th International Conference on Software Engineering: Software Engineering in Practice (ICSE-SEIP 2022)*., to appear
- 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. **HACnvGNN: 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 – 2022 **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 ACM Conference on Human Factors in Computing Systems (CHI), Late Breaking Work
- 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 – 2022 ACM Conference on Human Factors in Computing Systems (CHI) 🏆
- 2019 – 2022 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 | sony@umich.edu

Assistant Professor of School of Information at the University of Michigan

Christopher Brooks | brooks@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