

Yiwei Yang

University of Washington

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Education

- 10/2020 - present* **University of Washington**
Seattle, WA PhD Student, Information School
Research Interests: Interpretability and Fairness in Machine Learning, Task-based Information Retrieval
Advisor: Prof. Chirag Shah
- 09/2015 – 05/2019* **University of Michigan**
Ann Arbor, MI B.S. in Computer Science and Engineering
Advisor: Prof. Walter S. Lasecki

Professional Experience

- 10/20 - present* **InfoSeeking Lab, University of Washington**
Seattle, WA PhD Researcher(Advisor: Prof. Chirag Shah)
- 09/2015 – present* **Crowds and Machines Lab, University of Michigan**
Ann Arbor, MI Research Assistant (Advisor: Prof. Walter Lasecki)
- 05/2018 – 08/2018* **IBM Research, Almaden**
San Jose, CA Research Intern (Advisor: Dr. Yunyao Li)

Research Projects

- 11/20 - present* **A Neural Convolutional Heterogeneous Graph Model for Learning Task Representation**
UW *Lead* Worked on a novel task representation by constructing a heterogeneous graph that captures the relational information among users, queries, and documents
- 07/2019 – 01/2020* **Generating User-efficient Clarification Questions**
U of M *Lead* Worked on a human-machine hybrid approach that leverages human intelligence and ranking by information gain to select questions that balance the trade-off between information gain and answerability

- 05/2018 – **Learning Linguistic Expressions with Deep Learning and Human-in-the-Loop**
 05/2019 **Human-in-the-Loop**
IBM Research Worked on a novel human-in-the-loop interaction paradigm which
Lead learns first-order-logic rules with deep learning and recruits people
 to select rules that generalize beyond the training data; this work is
 featured on IBM Research Blog <https://www.ibm.com/blogs/research/2019/07/heidl-acl2019/>
- 05/2017 – **Bolt: Instantaneous Crowdsourcing Via Just-in-Time Training**
 09/2017 Worked on a “look-ahead” approach which breaks the cognitive
U of M barrier of humans by predicting possible future states and fetching
Co-Lead actions to each state beforehand through crowdsourcing

Publications

Conference Full Papers

- C.04 A. Lundgard, **Y. Yang**, M.L. Foster, W.S. Lasecki. Bolt: Instantaneous Crowdsourcing via Just-in-Time Training. *In Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 2018). Montral, Canada.*
- C.03 S.W. Lee, Y. Zhang, I. Wong, **Y. Yang**, S. D. O’Keefe, W.S. Lasecki. SketchExpress: Remixing Animations for More Effective Crowd-Powered Prototyping Of Interactive Interfaces. *In Proceedings of the ACM Symposium on User Interface Software and Technology (UIST 2017). Quebec City, Canada.*
- C.02 H. Kaur, M. Gordon, **Y. Yang**, J. Teevan, E. Kamar, J. Bigham, W.S. Lasecki. CrowdMask: Using Crowds to Preserve Privacy in Crowd-Powered Systems via Progressive Filtering. *In AAAI Conference on Human Computation Demos (HCOMP 2017), Quebec City, CAN.*
- C.01 Y. Chen, S.W. Lee, Y. Xie, **Y. Yang**, W.S. Lasecki, S. Oney. Codeon: On Demand Software Development Assistance. *In Proceedings of the International ACM Conference on Human Factors in Computing Systems (CHI 2017), Denver, USA.*

Workshop/Demo/Posters

- P.03 **Y. Yang.**, E. Kandogan, Y. Li, W.S.Lasecki, P.Sen. HEIDL: Learning Linguistic Expressions with Deep Learning and Human-in-the-Loop. *In Proceedings of the Association for Computational Linguistics (ACL 2019). Florence, Italy.*
(Best Poster at Michigan AI Symposium, 1/55)
- P.02 **Y. Yang.**, E. Kandogan, Y. Li, W.S.Lasecki, P.Sen. A study on Interaction in Human-in-the-Loop Machine Learning for Text Analytics. *Joint Proceedings of the ACM IUI 2019 Workshops co-located with the 24th ACM Conference on Intelligent User Interfaces (ACM IUI 2019), Los Angeles, USA, March 20, 2019.*

P.01 S. W. Lee, **Y. Yang**, S. Yan, Y. Zhang, I. Wong, Z. Yan, M. McGruder, C. M. Homan, W. S. Lasecki. Creating Interactive Behaviors in Early Sketch by Recording and Remixing Crowd Demonstrations. *In AAAI Conference on Human Computation Demos (HCOMP 2016), Austin, TX.*