

# Yiwei Yang

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## Education

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09/2015 – 05/2019 **University of Michigan**  
Ann Arbor, MI B.S. in Computer Science and Engineering  
Advisor: Prof. Walter S. Lasecki

## Professional Experience

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09/2015 – present **Crowds and Machines Lab, University of Michigan**  
Ann Arbor, MI Research Assistant (Advisor: Prof. Walter Lasecki)  
Developed crowd-powered systems that combine human and machine intelligence to solve a variety of problems ranging from sketching expressive animations to generating informative and easy-to-answer clarification questions

05/2018 – 08/2018 **IBM Research, Almaden**  
San Jose, CA Research Intern (Advisor: Dr. Yunyao Li)  
Introduced a novel interaction paradigm that leverages deep learning and NLP engineers to co-create an interpretable and generalizable model on sentence classification; this work is featured on IBM Research Blog  
<https://www.ibm.com/blogs/research/2019/07/heidl-acl2019/>

## Research Projects

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07/2019 – present **Generating User-efficient Clarification Questions**  
U of M Worked on a human-machine hybrid approach that leverages human intelligence  
Lead and ranking by information gain to select questions that balance the trade-off between information gain and answerability

05/2018 – 05/2019 **Learning Linguistic Expressions with Deep Learning and Human-in-the-Loop**  
IBM Research Worked on a novel human-in-the-loop interaction paradigm which learns first-  
Lead order-logic rules with deep learning and recruits people to select rules that generalize beyond the training data

09/2017 – 04/2018 **Specifying Affordances of Objects**  
U of M Worked on a crowdsourcing method to teach robots on how to interact with  
Lead never-before-seen objects

05/2017 – 09/2017	<b>Bolt: Instantaneous Crowdsourcing Via Just-in-Time Training</b>
U of M	Worked on a “look-ahead” approach which breaks the cognitive barrier of humans by predicting possible future states and fetching actions to each state beforehand through crowdsourcing
Co-Lead	
01/2017 – 05/2017	<b>Preserving Privacy in Crowd-Powered Systems</b>
U of M	Worked on a crowd-powered system which leverages people to filter sensitive information of images by showing segments at increasing level of granularities
Assistant	
03/2016 – 05/2017	<b>Remixing Animations for More Effective Crowd-Powered Prototyping of Interactive Interfaces</b>
U of M	Developed a feature that allows users to visualize and modify the path of objects in an animation; tested and debugged the system to run user studies
Assistant	
09/2015 – 02/2017	<b>Codeon: On-Demand Software Development Assistance</b>
U of M	Developed a chat window to enable communication between the user and the helper; helped conduct user studies
Assistant	

## Publications

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### 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 24<sup>th</sup> 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.