Michael Xieyang Liu

Ph.D Student · HCI Researcher

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Research Interests

Human-Computer Interaction (HCI), Programming Support Tools, Sensemaking, End-user Programming, Intelligent User Interfaces

Education

Ph.D. in Human-Computer Interaction *(in progress)* — *Aug. 2017 - Present*

Carnegie Mellon University, Human Computer Interaction Institute (HCII), School of Computer Science (SCS) — *Pittsburgh, PA, USA*

- Advisor: Dr. Brad A. Myers & Dr. Aniket Kittur

B.S. in Computer Science — *Sept. 2015 - Apr. 2017*

University of Michigan, Department of Electrical Engineering and Computer Science — *Ann Arbor, MI, USA*

- Advisor: Dr. Walter Lasecki

B.S.E. in Electrical and Computer Engineering — *Sept. 2013 - Aug. 2017*

University of Michigan – Shanghai Jiao Tong University Joint Institute — *Shanghai, China*

- Advisor: Dr. Jing Liu

Publications

Peer-reviewed Conference Papers

[C.1] Yu-Wei Chao , Yunfan Liu, **Xieyang Liu**, Huayi Zeng, Jia Deng. 2018. Learning to Detect Human-Object Interactions. *2018 IEEE Winter Conference on Applications of Computer Vision (WACV 2018).*

Workshop Papers

[W.2] **Michael Xieyang Liu**, Nathan Hahn, Angelina Zhou, Shaun Burley, Emily Deng, Aniket Kittur, Brad A. Myers. 2018. UNAKITE: Support Developers for Capturing and Persisting Design Rationales When Solving Problems Using Web Resources. *DTSHPS'18 Workshop on Designing Technologies to Support Human Problem Solving, IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC 2018).*

[W.1] **Michael Xieyang Liu**, Shaun Burley, Emily Deng, Angelina Zhou, Aniket Kittur, Brad A. Myers. 2018. Supporting Knowledge Acceleration for Programming from a Sensemaking Perspective. *Sensemaking Workshop @ CHI Conference on Human Factors in Computing Systems (CHI 2018)*

Posters

[P.1] Jane Hsieh, **Michael Xieyang Liu**, Brad A. Myers, Aniket Kittur. 2018. An Exploratory Study of Web Foraging to Understand and Support Programming Decisions. *IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC 2018).*

Research Experience

Graduate Research Assistant (advised by Dr. Brad A. Myers & Dr. Aniket Kittur) — *Aug. 2017 - Present*

Human-Computer Interaction Institute, Carnegie Mellon University — *Pittsburgh, PA, USA*

- Working on Unakite, a system that that scaffolds developers in making decisions using information from various web sources and embedding their decision-making structures into their code.

Undergraduate Researcher (advised by Dr. Walter Lasecki) — *Mar. 2016 - May. 2017*

Crowds and Machines Lab, University of Michigan — *Ann Arbor, MI, USA*

- Worked on crowd-powered interdisciplinary projects that address novel and promising research questions.

Research Assistant (advised by Dr. Jia Deng) *Sept. 2015 - Apr. 2016*

Vision & Learning Lab, University of Michigan *Ann Arbor, MI, USA*

- Worked on a computer vision based toolkit that boosts performance on human-object interation detection by exploiting human-object spatial relations.

Teaching Experience

Instructional Aide – EECS484 Database Management Systems (twice) *Fall 2016, Winter 2017*

University of Michigan *Ann Arbor, MI, USA*

- Prepare and lead weekly discussion sessions and office hours that facilitate students' learning process. Prepare teaching materials and course projects. Grade assignments and exams.

Teaching Assistant – Vv255 Multivariate Calculus *Summer 2015*

University of Michigan – Shanghai Jiao Tong University Joint Institute *Shanghai, China*

- Developed discussion slides and in-class exercises, led weekly discussion sessions, held office hours, graded.

Students Mentored

Jane Hsieh *Summer 2018, Fall 2018*

Oberlin College undergraduate student

- Worked on studying programmers' web-foraging behaviors.
- Contributed to the development of the Unakite system.

Emily Deng *Fall 2017*

CMU Master's student

- Worked on designing and carrying out interview studies with programmers that prob their programming behaviors and needs.

Shaun Burley *Fall 2017*

CMU Master's student

- Worked on designing and carrying out interview studies with programmers that prob their programming behaviors and needs.

Selected Honors, Grants & Awards

SHF: Small: Knowledge Acceleration for Programming (*$500,000 over 3 years)*, NSF *Jun. 2018*

James B. Angell Scholar, 94th Annual Honors Convocation, University of Michigan *Mar. 2017*

EECS Scholar Award, 2017 EECS Honors & Awards Reception, University of Michigan *Mar. 2017*

2016 Summer Undergraduate Research Experience (SURE) program, University of Michigan *May. 2016*

Tang-Junyuan Fellowship (Top 2/250, *$50,000)*, UM-SJTU Joint Institute *Jul. 2015, Jul. 2016*

Dean's List, University of Michigan *Dec. 2015, Apr. 2016*

Basic Teaching Assistant Certificate, Center for Learning and Teaching, UM-SJTU Joint Institute *Aug. 2015*

Dean's List, UM-SJTU Joint Institute *Dec. 2013, Aug. 2014, Dec. 2014, Aug. 2015*

Fellowship for Outstanding Academic Performance, Shanghai Jiao Tong University *Jun. 2015*

Meritorious Winner (Acceptance: 9%), COMAP Mathematical Contest in Modeling *Apr. 2015*

Languages & Technical Skills

Languages	**English** *(Bilingual proficiency)*, **Chinese** *(Native proficiency)*, **German** *(Limited working proficiency)*
Programming	HTML, Javascript, CSS, Node.JS, Python, SQL, C/C++, Swift, Java, LaTeX, etc.
Web & App Development	React, Redux, Angular, Bootstrap, PHP, Ionic, etc.
Keywords	Machine Learning, Deep Learning, Programming User Interfaces

Standardized Test Results

TOEFL **116/120** (Listening: 29/30, Reading 30/30, Speaking: 28/30, Writing: 29/30) *(taken in Sept. 2016)*