

# 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 Myers & Dr. Aniket Kittur)

Aug. 2017 - Present

HUMAN-COMPUTER INTERACTION INSTITUTE, CARNEGIE MELLON UNIVERSITY

Pittsburgh, PA, USA

- Working on UNAKITE, a system 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 interaction 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)