

YI-CHIEH LEE

+65-9195-1214 ◊ yclee@nus.edu.sg ◊ yclee.net

Research Interests: Human-Computer Interaction (HCI), Human-Centered AI, Conversational AI, Social Computing, Healthcare system, Computer-Supported Cooperative Work (CSCW)

Research Skills Quantitative and Qualitative Methods, Field/Lab Experiment, Usability Testing, Statistics, Contextual Inquiry,

EDUCATION

Ph.D. of Computer Science, University of Illinois Urbana-Champaign (UIUC) 2015 - 2021

- Research: *Designing Conversational Agents to Promote Self-disclosure and Behavior Change*

- Committee: Prof. Yun Huang, Prof. Karrie Karahalios, Prof. Hari Sundaram, and Prof. Naomi Yamashita

Master of Multimedia Engineering, National Chiao-Tung University 2011 - 2014

- Research: *Applying EEG Analysis to Human-Computer Interaction Design - Visual Attention Detection and Auditory Perception Usability Testing*

- Committee: Prof. Wen-Chieh Lin, Prof. Li-Wei Ko, Prof. Sheng-Fu Liang, and Prof. Hao-Chuan Wang

Bachelor of Computer Science, National Tsing Hua University 2008 - 2011

RESEARCH & WORK EXPERIENCE

Assistant Professor - National University of Singapore (NUS) July 2022 - **Present**
Department of Computer Science

Assistant Professor - Yale-NUS College July 2022 - **Present**
Affiliation

Researcher - NTT Research Labs, Kyoto Jun 2021 - Jun 2022
Topic: Human-centered AI, Social Computing, CSCW

UX Consultant - VOISS Co., Ltd. Jan 2021 - Oct 2021
Topic: Conversational AI for Healthcare

Research Assistant - Computer Science, UIUC Aug 2015 - May 2021
Topic: Human-centered AI, Social Computing

Research Intern - NTT (Nippon Telegraph and Telephone) May 2019 - Feb 2020
Topic: Computer-mediated communication, Supervisor: Dr. Naomi Yamashita

Research Intern - BOSCH Research and Technology Center May 2017 - Aug 2017
Topic: Conversational User Interface and IoT, Supervisor: Dr. Lisa Yu

Research Assistant - Computer Science, NCTU Aug 2011 - June 2014
Topic: Brain-Computer Interface, Neuroscience

PUBLICATION LIST

Journal

1. **Yi-Chieh Lee**, Naomi Yamashita, Yun Huang, *Exploring the Effects of Incorporating Human Experts to Deliver Journaling Guidance through a Chatbot*. Proceedings of the ACM: Human Computer Interaction (PACM HCI), 2021 (Presented at CSCW'21)
2. Li-Wei Ko, Rupesh Kumar Chikara, **Yi-Chieh Lee**, Wen-Chieh Lin. *Exploration of User's Mental State Changes during Performing Brain-Computer Interface*. Sensors 2020 (Impact Factor: 3.42)

3. **Yi-Chieh Lee**, Naomi Yamashita, Yun Huang, *Designing a Chatbot as a Mediator for Promoting Deep Self-Disclosure to a Real Mental Health Professional*. Proceedings of the ACM: Human Computer Interaction (PACM HCI), 2020 (Presented at CSCW'20)
4. Dennis Wang, **Yi-Chieh Lee**, Wai-Tat Fu. *"I Love the Feeling of Being on Stage, but I Become Greedy": Exploring the Impact of Monetary Incentives on Live Streamers' Social Interactions and Streaming Content*. Proceedings of the ACM: Human Computer Interaction (PACM HCI), 2019 - (Co-first author, Presented at CSCW'19)
5. **Yi-Chieh Lee**, Wen-Chieh Lin, Li-Wei Ko, Fu-Yin Cherng. *Visual Attention Monitor Based on Steady-state Visual Evoked Potential, IEEE Transactions on Neural Systems & Rehabilitation Engineering*. IEEE TNSRE 2016, Issue 3. **(Selected as front cover, Impact Factor: 3.34)**
6. Sheng-Fu Liang, Chih-En Kuo, **Yi-Chieh Lee**, Wen-Chieh Lin, Yen-Chen Liu, Peng-Yu Chen, Fu-Yin Cherng, Fu-Zen Shaw. *Development of an EOG-based Automatic Sleep Monitoring Eye Mask, IEEE Transactions on Instrumentation and Measurement*. IEEE TIM 2015 (Impact Factor: 3.65)

Conference (Peer-reviewed)

1. **Yi-Chieh Lee**, Naomi Yamashita, Yun Huang, Wai Fu, *"I Hear You, I Feel You": Encouraging Deep Self-disclosure through a Chatbot*. ACM CHI 2020 (Full paper, Acceptance Rate: 24.3%)
2. Masamune Kawasaki, Naomi Yamashita, **Yi-Chieh Lee**, Kayoko Nohara, *Assessing Users' Mental Status from their Journaling Behavior through Chatbots*. International Conference on Intelligent Virtual Agents (IVA) 2020 (Full paper, Acceptance Rate: 27%)
3. **Yi-Chieh Lee**, Chi-Hsien Yen, Dennis Wang, Wai-Tat Fu. *Understanding How Digital Gifting Influences Social Interaction on Live Streams*. ACM MobileHCI 2019 (Full paper, Acceptance Rate: 26.4%)
4. **Yi-Chieh Lee**, Wai-Tat Fu. *Supporting peer assessment in education with conversational agents*. ACM IUI 2019 (Poster)
5. **Yi-Chieh Lee**, Chi-Hsien Yen, Po-Tsung Chiu, Jung-Tai King, Wai-Tat Fu. *Tip Me! Tipping is Changing Social Interactions on Live Streams in China*. ACM CHI 2018 WIP
6. Chi-Hsien Yen, **Yi-Chieh Lee**, and Wai-Tat Fu. *Visible Hearts, Visible Hands: A Smart Crowd Donation Platform*. ACM IUI 2018 (Co-first author, Full paper, Acceptance Rate: 23%)
7. Chi-Hsien Yen, **Yi-Chieh Lee**, and Wai-Tat Fu. *Improving the Efficiency of Allocating Crowd Donations with Agent-Based Simulation Model*. In International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction and Behavior Representation in Modeling and Simulation, SBP-BRiMS 2017 (Full paper, Acceptance Rate: 20.2%)
8. **Yi-Chieh Lee**, Chi-Hsien Yen, and Wai-Tat Fu. *Improving Donation Distribution for Crowdfunding: An Agent-Based Model*. In Social, Cultural, and Behavioral Modeling: 9th International Conference, SBP-BRiMS 2016 (Full paper, Acceptance Rate: 47%)
9. **Yi-Chieh Lee**, Wen-Chieh Lin, Fu-Yin Cherng, Hao-Chuan Wang, Ching-Ying Sung, Jung-Tai King. *Using Time-Anchored Peer Commenting to Enhance Social Interaction in Online Education Videos*. ACM CHI 2015 (Full paper, Acceptance Rate: 25%)
10. **Yi-Chieh Lee**, Wen-Chieh Lin, Jung-Tai King, Li-Wei Ko, Yu-Ting Huang, Fu-Yin Cherng. *An EEG-based Approach for Evaluating Audio Notifications under Ambient Sounds*. ACM CHI 2014 **(Full paper, Honorable Mention Award, Top 5%)**
11. Chih-En Kuo, Sheng-Fu Liang, **Yi-Chieh Lee**, Fu-Yin Cherng, Wen-Chieh Lin, Peng-Yu Chen. *An EOG-based Sleep Monitoring System and Its Application on On-line Sleep-Stage Sensitive Light Control*. International Conference on Physiological Computing Systems, PhyCS 2014 **(Selected Paper, Top 5%)**

Workshop

1. **Yi-Chieh Lee**, Naomi Yamashita, Yun Huang, *Let's Work Together: Integrating Human Support with Conversational Agents*. Microsoft New Future of Work Symposium (NFW), 2020
2. **Yi-Chieh Lee**, Naomi Yamashita, Yun Huang, *Transferring Your Trust in a Chatbot to a Mental Health Professional*. CHI 2020 Workshop
3. **Yi-Chieh Lee**, Naomi Yamashita, Yun Huang, *Self-Disclosure in Chatbot AI Interaction: Ethical Concerns* CSCW 2019 Workshop

TEACHING EXPERIENCE

Co-Instructor Jan 2021 - May 2021
UIUC IS424: *Social Computing - Teachers Ranked as Excellent*

- Co-instruct Social Computing with Prof. Yun Huang
- Teach and Design lectures and Lab sessions to help students build up hands-on experience on applications of social computing

Teaching Assistant Aug 2020 - Dec 2020
UIUC IS496: *Designing for Interactive Social Experiences*, Instructor: Prof. Yun Huang

- Taught the concept of conversational user interface
- Ran and Designed Lab sessions to help students build up hands-on experience on developing AI-based chatbots
- Guided students to conduct experimental studies and text analysis

Teaching Assistant Aug 2019 - Dec 2019
UIUC CS105: *Intro Computing*, Instructor: Prof. Craig Zilles

- Taught Lab sessions to guide junior students Python programming
- Designed lecture materials

Instructor July 2019 - Aug 2019
AI Summer Camp

- Taught the concept of conversational user interface and AI
- Ran Lab sessions to help students build up hands-on experience of developing AI/rule-based chatbots

Teaching Assistant Jan 2019 - May 2019
UIUC CS467: *Social Visualization: people, data, and stories*, Instructor: Prof. Karrie Karahalios

- Guided students to conduct experimental studies and data analysis
- Led discussion of social visualization in lectures

ACADEMIC SERVICE

- Reviewer: ACM CHI'16, '17, '20, '21, '22; ACM CSCW'20, '21, '22; ACM IUI'19; ACM HRI'18; ACM MobileHCI'20; Eurographics PG'17; JDIQ'20, TüS'20; IJHCS'20, '21; IJHCI '22; VR'22
- Program Committee: SBP-BRiMS'20, ACM CHI'20, ACM CSCW'22
- Organizing Committee: ACM IUI'19, IUI'23, CSCW'22, TAICHI'22
- Student Volunteer: ACM CHI'16, ACM CHI'18

HONORS

- Studying Abroad Scholarship, Ministry of Education - 2016 & 2017
- Chirag Foundation Graduate Fellowship, University of Illinois Urbana-Champaign - 2015/8 - 2016/5
- Honorable Mention Award (Full paper) - SIGCHI 2014

- Young Researcher Thesis Award, The Chinese Institute of Electrical Engineering (CIEE), 2014
- Scholarship Award for Excellent Doctoral Student granted by NCTU, 2013/08-2014/06