Grace (Yu-Chun) Yen

HCI Researcher, PhD in Computer Science

yyen4@illinois.edu | 217-979-6380 | grace-yen.com

EDUCATION

University of Illinois at Urbana-Champaign, Urbana, Illinois   *2013- 2020 (expected)*
PhD Candidate in Computer Science, Advisor: Dr. Brian P. Bailey
Research Area: Human-Computer Interaction for Creativity Support

National Taiwan University (NTU), Taipei, Taiwan   *2009 - 2011*
M.S. in Computer Science, Advisor: Dr. Li-Chen Fu
Research Area: Artificial Intelligence for Pervasive Healthcare

National Taiwan Normal University (NTNU), Taipei, Taiwan   *2005 - 2009*
B.S in Computer Science, Advisor: Dr. Chiung-Yao Fang
Research Area: Computer Vision for Education

PROFESSIONAL SKILLS

Quantitative Methods: Statistical testing, behavior analysis, machine learning

Qualitative Methods: Survey design, Interview, Prototyping, Field research, Contextual inquiry

Programming languages: Python, JavaScript, jQuery, PHP, MySQL, JAVA, C++

Data analysis: R, SPSS, Tableau, JMP

Sketch tools: Balsamiq, Adobe XD, HTML/CSS

WORK EXPERIENCE

Adobe Inc., San Francisco, CA   *2019 Summer*
HCI Research Intern. Host: Joy O. Kim
- Led a design-based research project developing novel techniques for capturing and visualizing the relationships between user feedback and the iterative design process. Conducted contextual interviews to investigate the key motivations for tracking and recording a revision process. Performed prototype testing and presented findings in multiple HCI research teams.

Adobe Inc., San Francisco, CA   *2018 Summer*
HCI Research Intern, Creative Intelligence Lab, Host: Dr. Joy Kim
- Conducted formative research identifying designers' pain-points and strategies when managing feedback provided by multiple stakeholders (survey study, contextual inquiries, stakeholder interviews).
- Built a visualization tool (Decipher) that helps beginner designers better attend to critical issues and conflicting opinions in a collection of unstructured user feedback, compared to using document-editing tool.
- Evaluated Decipher using both qualitative (survey, screen-recording, interview)and quantitative methods (one-sample t-test,paired t-test) to gain concret insights about how users engage with different design features for the task.
- Presented research findings in HCIresearch groups and publish an academic paper in ACM CHI 2020

National Science Council (Taiwan), Taipei, Taiwan   *2011 – 2013*
Researcher/Lead Engineer, Supervisor: Dr. Greg Lee
- Worked as the lead engineer that designed and implemented a collaborative learning platform for computer science education. Hosted teacher workshops with both universities and high CS instructors, discussing the challenges when teaching programming in computer labs. The final platform has been deployed in multiple large-scale programming classes.

RESEARCH EXPERIENCE

Orchid Research Group, UIUC, Champaign, IL   *2013- present*
Doctoral Graduate Researcher, Advisor: Brian P. Bailey
- Designing lightweight interventions for increasing feedback engagement in online spaces.
- Reporting empirical results showing how including and ordering different interventions in the feedback loop improves design performance and perceptions of performance.

- Implementing practical systems for hosting large scale field study in design classrooms.
- Quantifying the effect of online platforms (e.g., Reddit, Facebook, MTurk) and design stages (early versus late-stage) on feedback generation.

Intelligent Robot and Automation Lab, NTU, Taipei, Taiwan   *2009-2011*
Graduate Researcher, Advisor: Li-Chen Fu
- Built a smart ward in the NTU Hospital using pervasive and machine learning technology.
- Conducted ethnography research observing and recording the interactions between medical staff and post-surgery patients.
- Translated user insights into design principles for developing ambient sensing technology in the real-world hospital.
- Closely collaborated with surgeons, psychologists, and engineers (won the Best Master's Thesis). Built trust with post-surgery elderly patients to participate in our field research.
- - My research won the Best Master's Thesis at NTU and the system was deployed in the National Taiwan University Hospital for collecting patient data for six months.

Computer Vision and Image Understanding Lab, NTNU, Taipei, Taiwan   *2008-2009*
Undergraduate Research Assistant , Advisor: Chiung-Yao Fang
- Built a vision-based gymnastics motion recognition system. The goal is to support self-training for beginners.

PUBLICATIONS (PEER-REVIEWED) All files are available at grace-yen.com

[C9]   **Yu-Chun Grace Yen**, Joy O. Kim, and Brian P. Bailey. *Decipher: An Interactive Visualization Tool for Interpreting Unstructured Design Feedback from Multiple Providers.* In Proceedings of the ACM Conference on Human Factors in Computing Systems, 14 Pages. (CHI '20)

[C8]   Chi-Hsien Yen, **Yu-Chun Grace Yen**, and Wai-Tat Fu. *An Intelligent Assistant for Mediation Analysis in Visual Analytics.* ACM Conference on Intelligent User Interface, Pages 432-436. (IUI '19) [paper]

[C7]   **Yu-Chun Grace Yen**, Steven P. Dow, Elizabeth Gerber, and Brian P. Bailey. *Listen to Others, Listen to Yourself: Combining Feedback Review and Reflection to Improve Iterative Design.* In Proceedings of the 2017 ACM SIGCHI Conference on Creativity and Cognition, Pages 158–170. (C&C '17) [paper]

[C6]   Helen Wauck, **Yu-Chun Grace Yen**, Wai-Tat Fu, Elizabeth Gerber, Steven P. Dow, and Brian P. Bailey. *From in the Class or in the Wild? Peers Provide Better Design Feedback Than External Crowds.* In Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems, Pages 5580-5591 (CHI '17). [paper]

[C5]   **Yu-Chun Grace Yen.** *Enhancing the Usage of Crowd Feedback for Iterative Design.* In Proceedings of the 2017 ACM SIGCHI Conference on Creativity and Cognition, Pages 513-517. (C&C '17) . [paper]

[C4]   **Yu-Chun Grace Yen**, Steven P. Dow, Elizabeth Gerber, and Brian P. Bailey. *Social Network, Web Forum, or Task Market? Comparing Different Crowd Genres for Design Feedback Exchange.* In Proceedings of the 2016 ACM Conference on Designing Interactive Systems, Pages 773-784 (DIS '16). [paper]

[J1]   Chun-Feng Liao, **Yu-Chun Grace Yen**, Yu-Chiao Huang, and Li-Chen Fu. *An Empirical Study on Engineering a Real-World Smart Ward Using Pervasive Technologies.* In 2016 IEEE Systems Journal, pp.240-249.[paper]

[C3]   Yu-Chiao Huang, Chun-Feng Liao**, Yu-Chun Grace Yen**, Li-Jen Hou, Li-Chen Fu, Chia-Hui Chen, Chiung-Nien Chen. *An Extensible Situation-Aware Caring System for Real-World Smart Wards*. In Proceeding of the International Conference on Smart Homes and Health Telematics, Pages 190-197 (ICOST 2012). [paper]

[C2]   **Yu-Chun Grace Yen**, Jiun-Yi Li, Ching-Hu Lu, Tsung-Han Yang and Li-Chen Fu. *Human-Centric Situational Awareness in the Bedroom.* In Proceeding of the International Conference on Smart Homes and Health Telematics, Pages 72-79 (ICOST 2011). [paper]

[C1]   **Yu-Chun Grace Yen**, Ching-Hu Lu, Yi-Chung Cheng, Jing-Siang Chen, and Li-Chen Fu. *Towards an Evidence-Based and Context-Aware Elderly Caring System Using Persuasive Engagement.* In Proceeding of the International Conference on Human-Computer Interaction, Pages 240-249 (HCII 2011). [paper]

Yu-Chun Grace Yen. *Human-centric and Situation-aware Pervasive Healthcare System in the Hospital for Elderly People.* Master's Thesis**.** National Taiwan University, Taiwan, 2011. (**Best Master's Thesis Award** [H3]) [Thesis]

Yu-Chun Grace Yen, Li-Chen Fu, Tsung-Han Yang, Fang-Cheng Liu, and Chun-Feng Liao. *An information processing system based on multi-layer inference architecture*. **PATENT** ID# I486914. Valid from June 2015 to May 2032. [link]

HONORS and AWARDS

[H6] **Dissertation Completion Fellowship**, University of Illinois at Urbana-Champaign   *2019*

[H5] **Grace Hopper Conference Grant**, University of Illinois at Urbana-Champaign   *2017*

[H4] **Muroga Endowed Fellowship**, University of Illinois at Urbana-Champaign   *2013*

[H3] **Best Master's Thesis**, Taiwanese Association for Artificial Intelligence, Taiwan   *2011*

[H2] **NSC Undergraduate Research Grant**, National Science Council, Taiwan   *2009*

[H1] **Distinguished Undergraduate Scholarship**, full tuition support   *2005-2009*

MENTORING/TEACHING EXPERIENCE

PURE Undergraduate Research Program, University of Illinois at Urbana-Champaign   *2017 Fall*
Research mentor: mentored three undergraduate students and two master students for their research projects

CS 565-Human-Computer Interaction, University of Illinois at Urbana-Champaign   *2015, 2017 Spring*
Teaching Assistant. led discussions on a broad set of HCI topics. Mentored eight research projects on the topic of leveraging crowdsourcing technology for iterative design.

CS 465-User Interaction Design, University of Illinois at Urbana-Champaign   *2014, 2017 Fall*
Instructor, Taught the principles of user interface design and mentored term projects on the topic of mobile and Web interface design.

Introduction to Web Design, SSCV High School, Taipei, Taiwan   *2009 Fall*
Practice Teacher

ACADEMIC AND COMMUNITY SERVICES

Paper Reviewer
- CSCW 2020 (received **Special Recognition of Outstanding Review**)
- CSCW 2018
- CHI 2020
- DIS 2017
- Creativity & Cognition 2018
- Creativity & Cognition 2019

Graduate Ambassador UIUC CS Department, 2016, 2017, 2018, 2020

Coordinator, HCI Seminar, scheduling and coordinating talks given by external speakers

REFERENCES

Brian P. Bailey | Ph.D. Advisor | Professor, University of Illinois at Urbana-Champaign
email: bpbailey@illinois.edu ; website: https://cs.illinois.edu/directory/profile/bpbailey

Joy O. Kim | Research Mentor | Research Scientist, Adobe Creative Intelligence Lab
email: joykim@adobe.com ; website: http://www.joyk.im/

Steven Dow | Dissertation Committee | Professor, UC San Diego
email: spdow@ucsd.edu ; website: http://spdow.ucsd.edu/

Karrie Karahalios | Dissertation Committee | Professor, University of Illinois at Urbana-Champaign
email: kkarahal@illinois.edu ; website: http://social.cs.uiuc.edu/people/karriekarahalios.html

Li-Chen Fu | M.S. Thesis Advisor | Professor, National Taiwan University
email: lichen@ntu.edu.tw ; website: http://www.ee.ntu.edu.tw/bio1?id=23