Grace (Y.-Chun) Yen

yyen4@illinois.edu | 217-979-6380

RESEARCH INTERESTS

Human-computer interaction, user experience research, data visualization, online communities, creativity supporting tools, healthecare, machine learning.

EDUCATION

University of Illinois at Urbana-Champaign, Urbana, Illinois (*G.P.A. 3.9/4.0*) ***Aug 2013- May 2020 (expected)***
PhD in Computer Science, Human-Computer Interaction Group
Dissertation Title: Turning feedback to actions through reflection, paraphrasing, and visualization
Advisor: Dr. Brian P. Bailey. Committee: Dr. Steven Dow (UCSD), Dr. Joy Kim(Adobe), Dr. Wai-tat Fu (UIUC)

National Taiwan University (NTU), Taipei, Taiwan (*GPA: 4.0/4.0)* ***Aug 2009 - June 2011***
M.S. in Computer Science, Intelligent Robot and Automation Lab,
Thesis Title: Human-centric and situation-aware pervasive healthcare system in the hospital for elderly People.
Advisor: Dr. Li-Chen Fu

National Taiwan Normal University (NTNU), Taipei, Taiwan *GPA: 3.91/4.0 (top 1%)* ***Aug 2005 - June 2009***
B.E. in Computer Science, Computer Vision and Image Understanding Lab
Senior Thesis:
Advisor: Dr. Chiung-Yao Fang

SKILLS

Quantitative Methods: statistical test, survey design, controlled experiment, machine learning

Qualitative Methods: interview, prototyping, qualitative coding

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

Data analysis: R, Excel, JMP, Tableau

PROFESSIONAL EXPERIENCE

University of Illinois at Urbana-Champaign, Champaign, IL ***Aug 2013 - present***
Research Assistant, Human-Computer Interaction Group. Advisor: Dr. Brian P. Bailey

- Led independent, mixed-method research projects on crowdsourcing, sensemaking, and online feedback exchange.
- Set up **interview** protocols, **survey** questionnaires, and **think-aloud** tasks to identify research opportunities.
- [C4, C5] Examined how crowd incentives affect online feedback generation (**ANOVA, content analysis**) and provided practical guidelines for designing future online feedback platforms for creative work.
- [C6, C7] Developed lightweight feedback intervention tools (**Javascript, PHP, MySQL**) and performed controlled experiments evaluating the effectiveness of the proposed innovations on creative performance (**AN(C)OVA, t-test, qualitative coding on survey responses**) .
- Conducted interviews and performed qualitative coding to generate deeper insights from interview and survey data.
- [C4, C5, C6] Developed and deployed creativity supporting tools in design classrooms and online design competition (**Javascript, jQuery, PHP, Python, HTML/CSS**)
- Publish and present research outcomes in top-tiered HCI conferences (e.g., ACM CHI, DIS, Creativity Cognition)

Adobe Inc., San Francisco, CA ***2018, 2019 Summer***
Research Intern, Creative Intelligence Lab, Host: Dr. Joy Kim

- Directed two internship projects on the topic of supporting feedback interpretation in online communities.
- Conducted semi-structured **interviews** with **think-aloud** activities (both **in-person** and **remote**) with designers from large software companies and online freelancing platforms.
- Designed and implemented interactive **visualization** tools for structuring textual feedback (2018) and recording revision history (**Javascript, JQuery, HTML/CSS, and Python/Django**).
- Created **prototypes** using user experience design tools (e.g. Adobe XD, inVision) to test concepts.
- Designed, executed, and analyzed data using both qualitative (**iterative coding, screen recording**) and quantitative

(**one-sample t-tests, paired t-test, survey**) methods.
- Collaborated with other research scientists, designers, and product managers in Adobe Research, Behance Livestreaming team and Document Cloud team.
- [C9] Presented research findings at multiple research teams and publish an academic paper in ACM CHI 2020

National Taiwan University, Taipei, Taiwan ***Aug 2009 - Nov 2011***

Research Assistant, Smart Home Group in Intelligent Robot Lab, Advisor: Dr. Li-Chen Fu
- Led interdisciplinary research on pervasive computing and healthcare systems.
- Conducted **field observations** (two weeks) in National Taiwan University Hospital to identify key activities and interactions and between medical staff, caregivers, and post-surgery impatiens.
- Coordinated monthly meetings with other computer scientists, psychologists, and medical staff to inform the results of the **field deployment** of the smart ward system and proposed future research directions.
- Implemented a situation-aware caring system using ambient sensing data (HMM, SVM, kNN- JAVA, C#).

National Science Council, Taipei, Taiwan ***Nov 2012 – May 2013***

Software Engineer/ Research Scientist, Supervisor: Dr. Greg Lee

Designed, developed, and deployed a collaborative learning platform for beginner programmers. Collaborated with other computer scientists, education experts and high school teachers. Field deployment the learning tool in classrooms.

National Taiwan Normal University, Taipei, Taiwan ***May 2008 – May 2009***

Undergraduate Researcher, Supervisor: Dr. Chiung-Yao Fang

Implemented a vision-based gymnastics move recognition system using temporal templates (e.g., MEI and MHI) and Stochastic Context-Free Grammar. The proposal won the Undergraduate Research Grant in Taiwan.

PUBLICATIONS (PEER-REVIEWED)

[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 (CHI '20). *To appear*

[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. (IUI '19)

[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 (C&C 2017).

[C6] **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 (C&C 2017).

[C5] Helen Wauck, **Yu-Chun Grace Yen**, Wai-Tat Fu, Elizabeth Gerber, Steven P. Dow, and Brian P. Bailey. 2017. *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 (CHI '17).

[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 (DIS '16).

[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 IEEE Systems Journal. Vol. PP, No.99, pp.1-10, 2016.

[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 (ICOST 2012).

[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 (ICOST 2011).

[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 (HCII 2011).

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 Thesis Award*** [H3])

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*. **TAIWANESE PATENT.** ID: I486914. Valid from June 2015 to May 2032.

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 Thesis Award**, Taiwanese Association for Artificial Intelligence, Taiwan *2011*

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

[H1] **Excellent Undergraduate Scholarship**, full tuition support awarded to the top 1% student *2005-2009*

MENTORING/TEACHING EXPERIENCE

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

CS 565-Human-Computer Interaction, University of Illinois *2015, 2017 Spring*
Teaching Assistant. Graduate-level class leading discussion on the topic of crowdsourcing and mentoring research-oriented term projects with six groups per semester.

CS 465-User Interaction Design, University of Illinois *2014 Fall, 2017 Fall*
Teaching Assistant, 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

Reviewer

- CSCW 2018, CSCW 2020 (received **Special Recognition of Outstanding Review**)
- CHI 2020
- Creativity & Cognition 2019

Graduate Ambassador of UIUC CS Department, supporting recruitment for the program

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