

# Grace (Yu-Chun) Yen

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## EDUCATION

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- University of Illinois at Urbana-Champaign**, Urbana, Illinois (G.P.A. 3.9/4.0) Aug 2013- Aug 2020  
**PhD in Computer Science**, Human-Computer Interaction Group  
Dissertation Title: Turning feedback to actions through reflection, paraphrasing, and visualization.  
Advisor: Dr. **Brian P. Bailey** Received Merit-based Dissertation Completion Fellowship  
Committee: Dr. Joy Kim (Adobe), Dr. Steven Dow (UCSD), Dr. Karrie G. Karahalios (UIUC), 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**. Awarded as the *Best Master's Thesis* in Taiwanese Association of Artificial Intelligence  
Committee: Dr. Cheryl Chia-Hui Chen (NTU Nursing), Dr. Mu-Chun Su (NCU HCI), Dr. Chiung-Nien Chen (NTU Medicine)
- 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: Vision-based Gymnastics Motion Recognition System.  
Advisor: Dr. **Chiung-Yao Fang**. Received *National Science Council Undergraduate Research Grant*

## PROFESSIONAL SKILLS

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**Quantitative Methods:** statistical testing, behavior analysis, machine learning  
**Qualitative Methods:** contextual interview, survey, grounded theory, iterative prototyping, ethnography research methods  
**Programming languages:** Python, JavaScript, jQuery, PHP, MySQL, HTML/CSS, JAVA, C++  
**Data analysis:** R, Tableau, JMP

## PUBLICATIONS (PEER-REVIEWED)

All files are available at [grace-yen.com](http://grace-yen.com)

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- [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) [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, 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. 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, 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 IEEE Systems Journal. Vol. PP, No.99, pp.240-249, 2016. [[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](#)]

## PROFESSIONAL EXPERIENCE

**University of Illinois at Urbana-Champaign,** Champaign, IL

**Aug 2013 - present**

*Research Assistant, Human-Computer Interaction Group. Advisor: Dr. Brian P. Bailey*

- Lead independent, mixed-method research projects on crowdsourcing, online feedback exchange, creativity support tools.
- Design and execute formative study (e.g. **interviews**, **survey**, **think-aloud** tasks) to identify research opportunities for improving online feedback services.
- [C4, C5] Investigated how user incentives affect online feedback generation (**ANOVA**, **content analysis**).
- [C6, C7] Designed and implemented tools **Javascript**, **jQuery**, **PHP**, **Python**, **HTML/CSS** for supporting feedback interpretation.
- Performed controlled experiments to evaluate tool effectiveness (**AN(C)OVA**, **t-test**, **qualitative coding on survey responses**).
- 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 patients.
- 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.

## HONORS and AWARDS

[H6] <b>Dissertation Completion Fellowship</b> , University of Illinois at Urbana-Champaign	2019
[H5] <b>Grace Hopper Conference Grant</b> , University of Illinois at Urbana-Champaign	2017
[H4] <b>Muroga Endowed Fellowship</b> , University of Illinois at Urbana-Champaign	2013
[H3] <b>Best Master Thesis Award</b> , Taiwanese Association for Artificial Intelligence, Taiwan	2011

[H2] NSC 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

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**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

*Teaching Assistant*. Graduate-level class leading discussion on the topic of crowdsourcing and mentoring research-oriented term projects with six groups per semester.

Spring

**CS 465-User Interaction Design**, University of Illinois

2014 Fall,

*Teaching Assistant*, Taught the principles of user interface design and mentored term projects on the topic of mobile and Web interface design.

2017 Fall

**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** of UIUC CS Department**Coordinator**, HCI Seminar, scheduling and coordinating talks given by external speakers

## REFERENCES

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**Brian P. Bailey** | Ph.D. Advisor | **Professor**, University of Illinois at Urbana-Champaign
email: [bpbailey@illinois.edu](mailto:bpbailey@illinois.edu) ; website: <https://cs.illinois.edu/directory/profile/bpbailey>**Joy O. Kim** | Research Mentor | **Research Scientist**, Adobe Creative Intelligence Labemail: [joykim@adobe.com](mailto:joykim@adobe.com) ; website: <http://www.joyk.im/>**Karrie Karahalios** | Dissertation Committee | **Professor**, University of Illinois at Urbana-Champaign & **Researcher**, Adobeemail: [kkarahal@illinois.edu](mailto:kkarahal@illinois.edu) ; website: <http://social.cs.uiuc.edu/people/karriekarahalios.html>**Li-Chen Fu** | M.S. Thesis Advisor | **Professor**, National Taiwan Universityemail: [lichen@ntu.edu.tw](mailto:lichen@ntu.edu.tw) ; website: <http://www.ee.ntu.edu.tw/bio1?id=23>**Greg Lee** | Project Manager | **Executive Vice President**, National Taiwan Normal Universityemail: [leeg@csie.ntnu.edu.tw](mailto:leeg@csie.ntnu.edu.tw) ; website: <http://en.ntnu.edu.tw/office-of-the-evp.php>