

# Chia-Fang (Christina) Chung

Assistant Professor  
Informatics, Luddy School of Informatics, Computing, and Engineering  
Indiana University Bloomington

Luddy Faculty Fellow 2020/2021  
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## Research Interests

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Designing systems and services to support healthcare, wellness, and relationships  
Personal Informatics, Behavior Change, Ubiquitous Computing, Computer-Supported Cooperative Work

## Education

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- University of Washington, Seattle, USA** 2012 - 2018  
PhD, Human Centered Design & Engineering  
Dissertation: Using Personal Informatics Data in Collaboration among People with Different Expertise  
Advisor: Sean Munson
- National Taiwan University, Taipei, Taiwan**  
MBA, Information Management 2004 - 2006  
Thesis: Design and Implementation of a Stateful High Speed Intrusion Detection System  
Advisor: Yeali Sunny Sun
- BBA, Information Management 2000 - 2004

## Refereed Journal Articles

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- 19 **Not Another Medication Adherence App: Critical Reflections on Addressing Public HIV-related Stigma Through Design** 2020  
Juan F. Maestre\*, Patrycja Zdziarska\*, Aehong Min\*, Anna Baglione\*, Chia-Fang Chung, Patrick C. Shih  
PACM. Human-Computer Interaction 2020; 4(CSCW3), 28 pages.
- 18 **The Importance of Starting with Goals in N-of-1 Studies** 2020  
Sean A. Munson, Jessica Schroeder, Ravi Karkar, Julie A. Kientz, Chia-Fang Chung, James Fogarty  
Frontiers in Digital Health 2020; 2(3), 7 pages.
- 17 **Changing Roles and Contexts: Symbolic Interactionism in the Sharing of Food and Eating Practices between Remote, Intergenerational Family Members** 2020  
Aswati Panicker\*, Kavya Basu\*, and Chia-Fang Chung  
PACM Human-Computer Interaction 2020; 4(CSCW1), 17 pages. Acceptance Rate: 25.3%
- 16 **Identifying and Planning for Individualized Change: Patient-Provider Collaboration Using Lightweight Food Diaries in Healthy Eating and Irritable Bowel Syndrome** 2019  
Chia-Fang Chung, Qiaosi Wang+, Jessica Schroeder, Alison Cole, Jasmine Zia, James Fogarty, Sean A. Munson  
PACM Interactive, Mobile, Wearable and Ubiquitous Technologies; 2019; 3(1). 27 pages.  
Acceptance Rates 23.5%
- 15 **Inter-Rater Reliability of Provider Interpretations of Irritable Bowel Syndrome Food and Symptom Journals** 2017  
Jasmine Zia, Chia-Fang Chung, Kaiyuan Xu\*, Yi Dong\*, Jeanette M. Schenk, Kevin Cain, Sean Munson, Margaret Heitkemper  
Journal of Clinical Medicine;6(11):105, 9 pages.

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\* Graduate student collaborators

+ Undergraduate student collaborators

- J4 **Should you always have a backup? One vs. Two Goals in Games** 2017  
Chia-Fang Chung and Sean A. Munson  
International Journal of Human-Computer Studies;108:32-40, 9 pages. Impact Factor: 3.163
- J3 **The Feasibility, Usability, and Perceived Clinical Utility of Traditional Paper Food and Symptom Journals for Patients with Irritable Bowel Syndrome** 2016  
Jasmine Zia, Chia-Fang Chung, Jessica Schroeder, Sean A. Munson, Julie A. Kientz, James Fogarty, Elizabeth Bales, Jeanette Schenk, Margaret Heitkemper  
Neurogastroenterology and Motility;28:e12935, 11 pages. Impact Factor: 2.946
- J2 **Implementation of a New Kiosk Technology for Blood Pressure Management in a Family Medicine Clinic: from the WWAMI region Practice and Research Network** 2016  
Chia-Fang Chung, Sean A. Munson, Matthew J. Thompson, Laura-Mae Baldwin, Jeffrey Kaplan, Randall Cline, Beverly B Green  
Journal of the American Board of Family Medicine 2016;29:620–629, 9 pages. Impact Factor: 2.661
- J1 **More Than Telemonitoring: Health Provider Use and Nonuse of Life-Log Data in Irritable Bowel Syndrome and Weight Management** 2015  
Chia-Fang Chung, Jonathan Cook, Elizabeth Bales, Jasmine Zia, Sean A. Munson  
Journal of Medical Internet Research 2015;17(8):e203, 26 pages. Impact Factor: 4.945

### Refereed Conference Papers with Proceedings

- c10 **Avoiding Reactions Outside the Home: Challenges, Strategies, and Opportunities to Enhance Dining Out Experiences of People with Food Hypersensitivities** 2021  
Francisco Nunes, João Almeida\*, Chia-Fang Chung, Nervo Verdezoto  
CHI 2021 (Article 208), 16 pages.
- c9 **Signal Appropriation of Explicit HIV Status Disclosure Fields in Sex-Social Apps used by Gay and Bisexual Men** 2019  
Mark Warner\*, Juan F. Maestre\*, Jo Gibbs, Chia-Fang Chung, Ann Blandford  
CHI 2019 (1-15), 15 pages. Acceptance rate: 23.8%
- c8 **Opportunities for Oral Health Monitoring Technologies Beyond the Dental Clinic** 2018  
Adele Parsons<sup>+</sup>, Chia-Fang Chung, Molly Donohue<sup>+</sup>, Sean Munson, Eric Seibel  
Pervasive Health 2018 (327-335), 9 pages. Acceptance rate: 24%
- c7 **Examining Self-Tracking by People with Migraine: Goals, Needs, and Opportunities in a Chronic Health Condition** 2018  
Jessica Schroeder, Chia-Fang Chung, Daniel A. Epstein, Ravi Karkar, Adele Parsons, Natalia Murinova, James Fogarty, Sean A. Munson  
DIS 2018 (135-148), 14 pages. Acceptance rate: 23% **Best Paper Honorable Mention (Top 5%)**
- c6 **Finding the Right Fit: Understanding Health Tracking in Workplace Wellness Programs** 2017  
Chia-Fang Chung, Nanna Gorm, Irina Shklovski, Sean A. Munson  
CHI 2017 (4875-4886), 12 pages. Acceptance rate: 25% **Best Paper Honorable Mention (Top 5%)**
- c5 **When Personal Tracking Becomes Social: Examining the Use of Instagram for Healthy Eating** 2017  
Chia-Fang Chung, Elena Agapie, Jessica Schroeder, Sonali Mishra, James Fogarty, Sean A. Munson  
CHI 2017 (1674-1687), 14 pages. Acceptance rate: 25%

- c4 **Supporting Patient-Provider Collaboration to Identify Individual Triggers using Food and Symptom Journals** 2017  
 Jessica Schroeder, Jane Hoffswell, Chia-Fang Chung, James Fogarty, Sean Munson, Jasmine Zia  
 CSCW 2017. (1726-1739), 14 pages. Acceptance rate: 35%
- c3 **Integrating Population-based Patterns with Personal Routine to Re-engage Fitbit Use** 2016  
 Chia-Fang Chung and Catalina M. Danis  
 PervasiveHealth 2016 (154-161), 8 pages. Acceptance rate: 30%
- c2 **Boundary Negotiating Artifacts in Personal Informatics: Patient-Provider Collaboration with Patient-Generated Data** 2016  
 Chia-Fang Chung, Kristin Dew, Alison Cole, Jasmine Zia, James Fogarty, Julie A. Kientz, Sean A. Munson  
 CSCW 2016 (770-786), 17 pages. Acceptance rate: 25% **Best Paper Award (Top 1%)**
- c1 **GreenOlive: An open platform for wellness management ecosystem** 2010  
 Liangzhao Zeng, Pei-Yue Hsueh, Henry Chang, Christina Chung, Rick Huang  
 IEEE SOLI 2010 (88-93), 6 pages

## Abstracts and Extended Abstracts

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- A10 **Computer Vision for Dietary Assessment** 2021  
 Chia-Fang Chung, Alejandra Ramos<sup>+</sup>, Pei-Ni Chiang<sup>\*</sup>, Chien-Chun Wu<sup>\*</sup>, Connie Ann Tan<sup>\*</sup>, Weslie Khoo, David Crandall  
 Workshop on Realizing AI in Healthcare: Challenges Appearing in the Wild, CHI 2021
- A9 **Meal Chat: Promoting Mealtime Social Interaction for College Students** 2020  
 Yuxing Wu<sup>\*</sup>, Elisa Krebs<sup>\*</sup>, Adithya Hassan Shankaranand<sup>\*</sup>, Patrick Shih, Chia-Fang Chung  
 CHI2020 Late Breaking Work
- A8 **Supporting patient-provider communication and engagement with personal informatics data** 2017  
 Chia-Fang Chung  
 UbiComp/ISWC 2017 Doctoral Colloquium
- A7 **The Feasibility, Usability and Perceived Clinical Utility of Traditional Paper Food and Symptom Journals for Patients with Irritable Bowel Syndrome** 2016  
 Jasmine Zia, Chia-Fang Chung, Jessica Schroeder, Jeanette Schenk, Sean Munson, Julie Kientz, James Fogarty, Margaret Heitkemper  
 The 2nd Federation of Neurogastroenterology & Motility Joint International Meeting (FNM 2016), San Francisco, CA.
- A6 **Flip the Clinic: Implementing Patient Self-measurement of Blood Pressure Using a Kiosk in a Clinic Waiting Room** 2016  
 Beverly B. Green, Chia-Fang Chung, Laura-Mae Baldwin, Sean Munson, Matthew J. Thompson  
 2016 American Society of Hypertension Annual Meeting, New York City
- A5 **Patient and Provider Goals and the Using Patient-Generated Data in IBS and Weight Management** 2016  
 Chia-Fang Chung, Kristin Dew, Jonathan Cook, Elizabeth Bales, Alison Cole, Jasmine Zia, James Fogarty, Julie Kientz, Sean Munson  
 Workshop on Interactive Systems in Healthcare (WISH), CHI 2016.
- A4 **Inter-rater Reliability of Healthcare Provider Interpretations of Food and Gastrointestinal Symptom Paper Diaries of Patients with Irritable Bowel Syndrome** 2016

Jasmine Zia, Chia-Fang Chung, Kaiyuan Xu, Yi Dong, Kevin Cain, Sean Munson, Margaret Heitkemper  
2016 Digestive Disease Week, San Diego, CA.

- A3 Patient and Provider Goals and Collaboration Process of Using Patient-Generated Data** 2016  
Chia-Fang Chung, Kristin Dew, Jonathan Cook, Elizabeth Bales, Alison Cole, Jasmine Zia, James Fogarty, Julie Kientz, Sean Munson  
Symposium on Use of Patient-Generated Data Beyond Self-Regulation. 2016 Conference of the International Society for Research on Internet Interventions (ISRII). Seattle, WA.
- A2 Temperature Sharing to Support Remote Relationships** 2014  
Chia-Fang Chung, James Hwang, Sean Munson  
UbiComp Adjunct 2014 (27-30)
- A1 Modeling Conceptual Work Products in a Multiple Sclerosis Clinic to Design a Superior User Interface** 2013  
Andrew Berry, Craig Harrington, Keith Butler, Melissa Braxton, Mark Haselkorn, Amy Walker, Mark Oberle, Chia-Fang Chung, Nikki Pete, W. Paul Nichol  
Workshop on Interactive Systems in Healthcare (WISH), AMIA 2013

## Workshop Papers

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- w5 Designing to support the exchange of food and eating practices between remote, inter-generational family members** 2021  
Aswati Panicker, Kavya Basu, Chia-Fang Chung  
Workshop on The Future of Human-Food Interaction, CHI 2021
- w4 Supporting Patient-Provider Communication and Relationships with Personal Informatics Data** 2017  
Chia-Fang Chung, Jessica Schroeder, Jasmine Zia, James Fogarty, Julie A. Kientz, Sean A. Munson  
Workshop on Quantified Data and Social Relationship, CHI 2017
- w3 Evidence-based HealthIT for Patient-Provider Communication** 2013  
Keith Butler, Mark Haselkorn, Melissa Braxton, W. Paul Nichol, Andrew Berry, Chia-Fang Chung  
Workshop on Patient-Clinician Communication, CHI 2013
- w2 An Intervention Recommendation Engine Approach for Chronic Disease Management** 2012  
Christina CF Chung  
Technical session on CPMS, the practice section, INFORMS International 2012
- w1 Monitor as a Services: Highly scalable event management platform in a cloud environment** 2011  
Christina CF Chung, Rick TC Huang  
IBM Regional Technical Exchange 2011

## Public-Facing Articles

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- p7 Understanding Dining-out Experiences of People with Food Hypersensitivities** 2021  
Christina Chung  
Medium article based on C10  
<https://medium.com/health-and-hci/understanding-dining-out-experiences-of-people-with-food-hypersensitivities-d714b85ae587>
- p6 How to Design for Public HIV-related Stigma?** 2020  
Juan Fernando Maestre<sup>\*</sup>  
Medium article based on J9  
<https://medium.com/health-and-hci/how-to-design-for-public-hiv-related-stigma-63ba92130084>

- P5** **Designing to support the exchange of food and eating practices between remote, inter-generational family members** 2020  
Aswati Panicker\*  
Medium article based on J7  
<https://medium.com/health-and-hci/designing-to-support-the-exchange-of-food-and-eating-practices-between-remote-inter-generational-30925cc1e075>
- P4** **Designing food diaries to support collaboration between individuals and health experts** 2019  
Christina Chung  
Medium article based on J6  
<https://medium.com/hci-design-at-uw/designing-food-diaries-to-support-collaboration-between-individuals-and-health-experts-350703038e5b>
- P3** **Privacy Unraveling as a Threat to Disclosure Choice Around Sensitive Information in Online Social Environments** 2019  
Mark Warner\*  
Medium article based on C9  
<https://medium.com/acm-chi/privacy-unraveling-as-a-threat-to-disclosure-choice-around-sensitive-information-in-online-social-ae9585760cea>
- P2** **Should you have a backup goal?** 2018  
Christina Chung  
Medium article based on J4  
<https://medium.com/hci-design-at-uw/should-you-have-a-backup-goal-dcc82ffcd13>
- P1** **Fitbits and Food Journals in the Doctor's Office** 2017  
Christina Chung  
Medium article based on C2 and J1  
<https://medium.com/hci-design-at-uw/fitbits-and-food-journals-in-the-doctors-office-3b6c2cb006b1>

## Selected Media Coverage

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- M11** **How the 'Instagram diet' works**  
Lisa Drayer. CNN. 11 August 2017  
<http://www.cnn.com/2017/08/11/health/instagram-diet-food-drayer/index.html>
- M10** **Food photography a healthy habit for some**  
Ted Land. King 5 TV. 3 May 2017.  
<http://www.king5.com/news/local/food-photography-a-healthy-habit-for-some/436534037>
- M9** **People Are Using Instagram as a Dieting Tool—And Maybe That's Not a Bad Thing**  
Caroline Cunningham. The Washingtonian. 2 May 2017  
<https://www.washingtonian.com/2017/05/02/people-are-using-instagram-as-a-dieting-tool-and-maybe-thats-not-a-bad-thing/>
- M8** **Here's How Instagram Can Help You Eat Healthier**  
Alisa Hrustic. Men's Health. 28 April 2017  
<http://www.menshealth.com/nutrition/how-instagram-can-help-you-eat-healthier>
- M7** **Instagram Food Photos Keep Dieters on Track**  
Jessica Friger. Newsweek. 27 April 2017  
<http://www.newsweek.com/food-diary-diet-instagram-social-media-591322>

- M6 Instagram may help users track food intake**  
Amy Wallace. UPI. 26 April 2017  
<http://www.upi.com/Instagram-may-help-users-track-food-intake/3741493225922/>
- M5 People turn to Instagram to eat healthier, UW study says**  
Madelaine VanDerHeyden. King 5. 27 April 2017.  
<http://www.king5.com/news/health/instagram-foodies-have-healthier-diets-study-says/434311750>
- M4 UW study finds food in your Instagram feed helps some users track and maintain healthy habits**  
Kurt Schlosser. GeekWire. 26 April 2017  
<http://www.geekwire.com/2017/uw-study-finds-food-instagram-feed-helps-users-track-maintain-healthy-habits/>
- M3 Could Posting Your Food Photos Help You Eat Healthier?**  
Jillian Kramer. Food & Wine. 27 April 2017  
<http://www.foodandwine.com/news/could-posting-your-food-photos-help-you-eat-healthier>.
- M2 Bridging Expectations Between Doctors and Patients When It Comes To Digital Data**  
Jennifer Wing. KNKX News for Seattle and the Northwest, 14 March 2016  
<http://knkx.org/post/bridging-expectations-between-doctors-and-patients-when-it-comes-digital-data>
- M1 UW paper addresses fitness app disconnect between providers and patients**  
Aly Brady. The Daily, 11 March 2016  
[http://www.dailyuw.com/news/article\\_dac52596-e743-11e5-a07d-9379d8ab7f7c.html](http://www.dailyuw.com/news/article_dac52596-e743-11e5-a07d-9379d8ab7f7c.html)

## Invited Talks

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	<b>Personal Tracking in Interpersonal Contexts</b>	
T20	Guest Lecture, INFO 591 (Introduction to HCI/d), Indiana University Bloomington	2020
T19	Guest Lecture, INFO 407 (Health Informatics), Indiana University Bloomington	2020
T18	HCI and Behavior Change Panel, HCI Summer Festival Newcastle University/Northumbria University/City University of London	2020
T17	University of California Davis Computer Science Colloquium	2020
T16	Indiana University Center of Excellence for Women & Technology Faculty and Ph.D. Salon	2020
	<b>Identifying and Planning for Individualized Change: Patient- Provider Collaboration Using Lightweight Food Diaries</b>	
T15	Indiana University Clinical and Translational Sciences Institute Retreat	2019
	<b>Supporting Healthy Eating Using Food Photos</b>	
T14	Guest Lecture, INFO 407 (Health Informatics), Indiana University Bloomington	2019
T13	Indiana University Food Institute Seminar	2019
	<b>Using Personal Informatics Data in Collaboration with People with Different Expertise</b>	
T12	School of Computing, The University of Utah	2018
T11	Precision Health Initiative, School of Informatics, Computing, and Engineering, Indiana University Bloomington	2018
T10	Information Systems, University of Maryland, Baltimore County	2018
T9	Management Science, University of Waterloo	2018
T8	Computer Science, University of Illinois at Chicago	2018
	<b>When Personal Tracking Becomes Social: Examining the Use of Instagram for Healthy Eating</b>	
T7	Guest Lecture, HCDE 419 (Concepts in Human-Computer Interaction), University of Washington	2020
T6	Guest Lecture, INFO 407 (Health Informatics), Indiana University Bloomington	2019
T5	Guest Lecture, HCDE 419 (Concepts in Human-Computer Interaction), University of Washington	2018

T4	Guest Lecture, HS 204 (Communicating About Health: Current Issues and Perspectives), University of Washington	2018
T3	Guest Lecture, HS 204 (Communicating About Health: Current Issues and Perspectives), University of Washington	2017
<b>Video Interpretation Service Platform for Hearing-impaired People</b>		
T2	IBM Academy of Technology 2010 Academy Collaboration Conference	2010
T1	The 6 <sup>th</sup> China Information Accessibility Forum, Beijing, China, November 2 <sup>nd</sup> 2009	2009

## Teaching Experience

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### Instructor

INFO 400/590: Cross-Platform Mobile Programming	Autumn 2021
INFO 609/709: Advanced Seminar (Health Informatics: Personal Informatics and Beyond)	Spring 2021
INFO 400/590: Cross-Platform Mobile Programming	Autumn 2020
INFO 609/709: Advanced Seminar (Health Informatics: Personal Informatics and Beyond)	Spring 2020
IFNO 400: Cross-Platform Mobile Programming	Autumn 2019
INFO 609: Advanced Seminar (Health Informatics: Personal Informatics and Beyond)	Autumn 2018

### Research Group Mentorship

IU ProHealth Summer REU: Designing to Support the Exchange of Food and Eating Practices between Remote, Inter-generational Family Members (Colin LeFevre, Indiana University and Forum Modi, The College of New Jersey)	Summer 2021
IU ProHealth Summer REU: Understanding Communication of Remote, Intergenerational Families on Healthy Eating (Monika Worwa and Tahj Dosso, DePauw University)	Summer 2019
HCDE 496/596: Supporting Healthy Eating Data Generation & Sharing with Health Experts	Autumn 2017
HCDE 496/596: Patient-Provider Sharing of Consumer Lifelogs	
HCDE 496/596: Technology Support for Health & Wellness (Goal Setting)	Spring 2015
HCDE 496/596: Technology Support for Health & Wellness (Temperature Sharing to Support Remote Relationship)	Autumn 2013 - Spring 2014 Spring & Autumn 2013

### Individual Student Mentorship

#### PhD Advisee

Seung Wan Ha (IU Informatics)	2020 - Current
Aswati Panicker (IU Informatics)	2020 - Current
Yuxing Wu (IU Informatics)	2019 - Current

#### PhD Committee

Arash Zakeresfahani (IU Informatics)	2021 - Current
Laura Calloway (IU Informatics)	2021 - Current
Novia Nurin (IU Informatics)	2020 - Current
Cassie Kresnye (IU Informatics)	2019 - Current

#### Master's Student

Chien-Chun Wu (IU HCI/D)	2020 - Current
Connie Tan (IU HCI/D)	2020 - Current
Aswati Panicker (IU HCI/D)	2019 - 2020
Kavya Basu (IU HCI/D)	2019 - Current
Penny Chang (IU HCI/D)	2018 - Current

Dong Yi (UW HCDE)	Fall 2015
Kaiyuan Xu (UW)	Spring & Fall 2015
<b>Undergraduate Student</b>	
Colin LeFevre (IU Informatics, IU ProHealth REU Site)	2021 - Current
Forum Modi (The College of New Jersey, IU ProHealth REU Site)	2021 - Current
Joni Dalton (IU Informatics, CEWiT REU-W program)	2020 - Current
Jacie Little (IU Informatics, CEWiT REU-W program)	2020 - Current
Ellie Harrison (IU Anthropology, CEWiT REU-W program)	2019 - Current
Monika Worwa (DePauw University, IU ProHealth REU Site)	Summer 2019
Tahj Dosso (DePauw University, IU ProHealth REU Site)	Summer 2019
Qiaosi Wang (UW iSchool undergraduate student)	Summer - Fall 2017
<b>Graduate Teaching Assistant, Human Centered Design &amp; Engineering</b>	
HCDE 310: Interactive System Design & Technology (Sean Munson)	Autumn 2017
HCDE 310: Interactive System Design & Technology (Sean Munson)	Autumn 2016
HCDE 310: Interactive System Design & Technology (Sean Munson)	Autumn 2014
HCDE 310: Interactive System Design & Technology (Sean Munson)	Autumn 2013
HCDE 310: Communication Design & Technology (Sean Munson)	Autumn 2012

## Grants

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### External

- G4 NSF Computer and Information Science and Engineering (CISE) Research Initiation Initiative (CRII) Award** 2020  
 Promoting Connectedness and Wellbeing through Healthful Eating  
 Chia-Fang Chung (PI). \$174,989

### Internal

- G3 Indiana University Luddy Faculty Fellowship 2020/2021** 2020  
 Examining Food Experiences during Routine Disruptions  
 Chia-Fang Chung (PI). \$20,000
- G2 Indiana University Precision Health Initiative Gestational Diabetes Mellitus Team Pilot Project Award** 2019  
 Supporting the development and evaluation of automated algorithms to identify eating behaviors from photos  
 Chia-Fang Chung (PI) and David Crandall (Co-PI). \$9,950.
- G1 Indiana University Precision Health Initiative Project Development Award** 2018  
 Enhanced Dietary Analysis to Support the Understanding of Diverse Contributors to Gestational Diabetes Mellitus  
 Chia-Fang Chung (PI). \$28,800

## Prior Research Experience

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<b>University of Washington, Seattle</b>	2012 - 2018
Graduate Research Assistant, Human Centered Design & Engineering	2013 - 2018
Supervisor: Sean Munson	
Sharing lifelog data with healthcare providers and experts in clinical care (funded by AHRQ)	
Adoption of blood pressure kiosks in clinical settings	
TempFeel: Supporting remote relationships with temperature information sharing	
Goal setting features in health and wellness applications	
Graduate Research Assistant, Human Centered Design & Engineering	2012 - 2013



Supervisor: Keith Butler and Mark Haselkorn

Design and evaluate the evidenced-based method for health information technology (funded by AHRQ)

### **IBM T.J. Watson Research Center, Yorktown Heights, NY**

Research Intern, Computational Health Behavior & Decision Science

Autumn 2015

Supervisor: Catalina Danis

Integrating Population-based Patterns with Personal Routine to Re-engage Fitbit Use

### **IBM Research Collaboratory Taiwan**

2009 - 2012

#### **Care Coordination for Diabetes Management**

2012

Supervisor: Sreeram Ramakrishnan and Henry Chang

Architected and designed in-market experiments and system architecture to facilitate chronic disease management inside and outside hospital and improve clinical outcome

Conducted user study, system flow/process analysis of 2 area hospitals (2000+ beds) and 1 clinic group (7 clinics and 3 supporting hospitals) as well as experiment design

#### **Context-based Personal Wellness Management System**

2010 - 2012

Supervisor: Raymund Lin and Sreeram Ramakrishnan

Architected and integrated 3-party coaching service, exercise prescription and monitoring system to provide context-based exercise guiding service.

Performed user centered system design and conducted In-market experiment.

#### **Monitor as a Service: Highly scalable event processing service in the cloud**

2010 - 2011

Supervisor: Liangzhao Zeng

#### **Health Management Application Development and Deployment Framework**

2009 - 2010

Supervisor: Liangzhao Zeng and Henry Chang

## **Professional Experience**

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### **Indiana University Bloomington**

Assistant Professor, Informatics, Luddy School of Informatics, Computing, and Engineering

2018 - Current

### **IBM Greater China Developer Lab, Taipei, Taiwan**

#### **iConnect: Mobile Location-based Assistant for Deaf Community**

2011 - 2012

Chief Architect, User Experience Researcher and Team Leader (4 team members)

Architected, designed and implemented server platform and mobile app to facilitate task distribution among sign-language interpreters and to help deaf users locate interpreters nearby

*This project won the IBM Centennial Grant Award for Community Service*

#### **Video Interpretation Service Platform for Hearing-impaired People**

2009 - 2010

Chief Architect, Chief Programmer and User Experience Researcher

Architected, performed user centered design, and implemented an integrated platform on mobile devices to help deaf people communicate with others via interpretation service

Established the first video interpretation center in Asia and successfully supported Summer Deaflympics 2009, Taipei

*Adopted by Taipei City Government and served deaf communities in Taiwan since 2009*

#### **Intelligent Receptionist: next generation smart banking teller system**

2008

Chief Architect, Project Lead and Chief Programmer

Developed an integrated personal financial service system to promote service quality and sale

*Deployed and in production in more than 200 branches of one major bank in Taiwan*

#### **IBM RFID Asset Management System**

2006 - 2007

Chief Programmer

Designed and implemented mobile asset management client, RFID reader agent, and database

*Deployed and in production in IBM China Development Lab since 2007*

## Patents

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<b>Lifestyle progression models for use in preventative care</b>	2012
Matthew Chen, Christina Chung, Rick Huang, June-Ray Lin, Ya-Fen Yeh, Xinxin Zhu United States Patent 20140188507	
<b>Health Management Application Development and Deployment Framework</b>	2010
Hung-Yang Chang, Chia-Fang Chung, Pei-Yun Sabrina Hsueh, Tsung-Chi Huang, Liangzhao Zeng United States Patent 20120046966A1	

## Awards

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Indiana University Luddy Faculty Fellowship 2020/2021	2020
NSF CRII Award (Promoting Connectedness and Wellbeing through Healthful Eating)	2020
2020 Indiana University Trustees Teaching Award	2020
2018 Sage Assembly Young Investigator Award	2018
DIS 2018 Best Paper Honorable Mention (C7)	2018
Ubicomp/ISWC 2017 Doctoral Colloquium Travel Grant	2017
CHI 2017 Best Paper Honorable Mention (C6)	2017
Consortium for the Science of Sociotechnical System (CSST) 2016 Summer Institute Travel Grant	2016
CHI 2016 Workshop on Interactive Systems in Healthcare (WISH) Travel Grant	2016
CRA-W Graduate Cohort Travel Grant	2016
CSCW 2016 Best Paper Award (C2)	2016
Ubicomp/ISWC 2014 Broadening Participation Workshop Travel Grant	2014
2014 Shobe Prize Finalist	2014
IBM Team Award (Supporting iConnect project to win the IBM Centennial Grant)	2011
IBM First Patent Application Invention Achievement Award	2010
IBM Award of Distinction (Volunteering to Chinese Deaf Association and supporting the 21st Summer Deaflympics Taipei)	2009

## Community Services

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### Technical Program Committee

Associate Chair. ACM CSCW	2020 - 2021
Associate Chair. ACM CHI 2021. Health	2020
Associate Chair. Pervasive Health 2020	2020
Best Paper Committee. ACM CHI 2020	2019
Associate Chair. ACM CHI 2020. Health	2019
Program Committee Member. TAICHI 2019	2019
Associate Chair. ACM DIS 2019. Experience, Artifacts, and Technology	2019
Associate Chair. ACM CHI 2019. Interaction Beyond the Individual	2018

### Grant Reviewing

Review Panelist. National Science Foundation	2021
Review Panelist. National Science Foundation	2019

### Paper Reviewing

2014 - 2020

### HCI publications

ACM CHI, CSCW, DIS, Ubicomp/IMWUT, Mobile HCI, Health, Communications of ACM, NordiCHI, IJHCS, IJHCI, Frontiers in Big Data

### Health Informatics publications

JAMIA, JMIR, JHIR, EAI Pervasive Health

## Other Conference and Community Volunteer

Session Chair. ACM CSCW	2020
Faculty Mentor. SIGCHI CSCW Asian School	2020
Session Chair. ACM CHI	2018 - 2019
Student Coordinator. DUB Doctoral Consortium	2017
Student Coordinator. DUB Seminar	2016 - 2017
Student Mentor. UW Dream Project College Admission Workshop	2016
Student Mentor. Community Data Science Workshop	2014
Student Volunteer	
CSCW 2017 (Portland), CHI 2014 (Toronto), UbiComp 2014 (Seattle), SIGDOC 2012 (Seattle)	2012 - 2017

## Internal Service

Informatics Executive Committee	2020 - Current
Faculty Judge. CEW&T Woman's Research Hackathon	2020
SICE PHI/AI Faculty Search Committee	2019 - 2020
SICE PHI/ML Faculty Search Committee	2018 - 2019
Informatics Colloquium Committee	2018 - Current

## Industry Volunteer

Co-Founder. Mobile technology Community in IBM China Development Lab, Taipei	2010 - 2011
Volunteer. Chinese Deaf Association and support Summer Deaflympics	2009
Volunteer. IBM Engineering Weeks	2007 - 2011
Mentor. IBM Summer Interns and Women in Technology Group	2006 - 2011