

# Xiaoxing LIU

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## Education

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Ph.D. in Informatics (Information Science) The University of Iowa	August 2016
M.S. in Informatics (Information Science) The University of Iowa	August 2013
M.S. in E-Commerce and Logistics Technologies The Chinese University of Hong Kong	June 2009
B.A. in Digital Media – Web Multimedia Communication University of China	June 2008

## Academic and Research Positions

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<b>Assistant Professor</b> Adelphi University Department of Mathematics and Computer Science	2017 – Present
<b>Postdoctoral Research Scholar</b> The University of Iowa Department of Industrial and Systems Engineering	2016 – 2017
<b>Research and Teaching Assistant</b> The University of Iowa (multiple positions) College of Engineering / Tippie College of Business / School of Library and information Science / National Advanced Driving Simulator	2012 – 2016
<b>Research Assistant</b> Chinese Academy of Sciences and The Chinese University of Hong Kong Center of Intelligent and Biomimetic Systems	2009 – 2010

## Courses Taught

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### Adelphi University (2017 – present)

#### Undergraduate:

- CSC 170 Introduction to Computers and Their Applications
- CSC 175 Intermediate Computer Programming
- CSC 263 Database Management Systems
- CSC 273 Data Structures
- CSC 344 Algorithms and Complexity
- CSC 480/481/482 Computer Science Senior Seminar capstone sequence

#### Graduate:

- CSC 565 Database Management Systems (graduate)
- MTH 601 Data Science
- CSC 680 Topics in Computer Science (Human-Computer Interaction)
- CSC 690 Graduate Capstone in Computer Science

### The University of Iowa (2012 – 2016, as Teaching Assistant)

- MSCI:1500 Business Computing Essentials
- MSCI:3005 Information Systems
- MSCI:3020 Business Programming
- IE:3500 Information Systems Design

## Peer-Reviewed Publications

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- Li, S., & **Liu, X.** (2022, May). Toward a BCI-Based Personalized Recommender System Using Deep Learning. In *2022 IEEE 8<sup>th</sup> Intl Conference on Intelligent Data and Security (IDS)* (pp. 180-185). IEEE. <https://doi.org/10.1109/BigDataSecurityHPSCIDS54978.2022.00042>
- **Liu, X.**, & Kim, S. (2021, June). Beyond Shopping: The Motivations and Experience of Live Stream Shopping Viewers. In *2021 Thirteenth International Conference on Quality of Multimedia Experience (QoMEX)* (pp. 187-192). IEEE. <https://doi.org/10.1109/QoMEX51781.2021.9465387>
- Zuidema, C., Sousan, S., Stebounova, L. V., Gray, A., **Liu, X.**, Tatum, M., ... & Koehler, K. (2019). Mapping occupational hazards with a multi-sensor network in a heavy-vehicle manufacturing facility. *Annals of work exposures and health*, 63(3), 280-293. <https://doi.org/10.1093/annweh/wxy111>

- Thomas, G. W., Sousan, S., Tatum, M., **Liu, X.**, Zuidema, C., Fitzpatrick, M., Koehler, K. A., & Peters, T. M. (2018). Low-Cost, Distributed Environmental Monitors for Factory Worker Health. *Sensors*, *18*(5), 1411. <https://doi.org/10.3390/s18051411>
- **Liu, X.**, Thomas, G. W., & Cook, S. W. (2018). The effect of pointing on spatial working memory in a 3D virtual environment. *Applied Cognitive Psychology*, *32*(3), 383-389. <https://doi.org/10.1002/acp.3411>
- **Liu, X.**, & Thomas, G. W. (2017, May). Gesture Interfaces: Minor Change in Effort, Major Impact on Appeal. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems* (pp. 4278-4283). ACM. <https://doi.org/10.1145/3025453.3025513> (CHI '17, acceptance rate ~25%)
- Karam, M. D., Thomas, G. W., Taylor, L., **Liu, X.**, Anthony, C. A., & Anderson, D. D. (2016). Value added: the case for point-of-view camera use in orthopedic surgical education. *The Iowa orthopaedic journal*, *36*, 7.
- Anthony, C.A., **Liu, X.**, Thomas, G.W., Karam, M.D. (2015, May). Orthopaedic resident education: A novel technology platform for surgeon training. Poster presented at the *University of Iowa Hospitals & Clinics 2015 GME Leadership Symposium*. Iowa City, IA.

## Grants

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### *Funded:*

- The Impact of Physical Effort on User Satisfaction for VR Gestures. March 2021, Adelphi University Faculty Development Grant. (\$3,900)

### *Non-Funded:*

- Real-time Remote Respirator Fit (RRRF) assessment system for cost-effective and real-time protection of workers. January 2021, National Institutes of Health (NIH), R43/R44 Small Business Innovation Research (SBIR) Grant - Phase I. (Up to \$256,580 for 12 months)
- Real-Time Remote Monitoring of Respirator Fit Using Smart Low-Cost Sensors. June 2020, Centers for Disease Control and Prevention (CDC), Broad Agency Announcement (BAA) 75D301-20-R-68024: Applied Research to Address the Coronavirus (COVID-19) Continued Public Health Emergency. (Total budgeted cost \$221,580 per year)
- CRII: CHS: RUI: The Impact of Physical Effort on Appeal for Gesture Interactions in Virtual Reality. August 2019, National Science Foundation (NSF): Computer and Information Science and Engineering (CISE) Research Initiation Initiative (CRII). (Total budgeted cost \$152,661 for 24 months)

- Development and Assessment of a Children Obesity Recognition and Avoidance (CORA) System. October 2018, Robert Wood Johnson Foundation (RWJF): Technology, Infrastructure, and Health 2018 Featured Call for Pioneering Proposals program. (Total budgeted cost \$311,609 for 24 months)
- Development of an Artificial-Intelligence-Based Children Healthy Eating Early Recommendation (CHEER) System. July 2018, Robert Wood Johnson Foundation (RWJF), Healthy Eating Research (HER): Building Evidence to Promote Health and Well-Being Among Children Through Nutritious Foods and Beverages. Round 11 small-scale grants (up to \$200,000 and 18 months).

## Service

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### *University*

- Committee Member, Faculty Senate Committee of Academic Affairs (FSCAA), Adelphi University, 2018 – present
- Faculty advisor, the School Science Advancement Program (SSA) for Science Technology Entry program (STEP) (New York State STEP program). Adelphi University, 2021 – present
- Member of the Adelphi University Program Viability Task Force, 2018 – 2020
- Faculty Search Committee Member or Participant, seven (7) new hires, Math & CS, 2018 – 2022
- Member of Computer Science program external review task force, 2020
- Honors College Undergraduate Honor Thesis Reader/Reviewer, 2018

### *Professional & External*

- Reviewer, (CHI) The ACM CHI conference on Human Factors in Computing Systems, 2017, 2020, 2022
- Reviewer, (CSCW) The ACM conference on Computer-Supported Cooperative Work and Social Computing, 2022
- Reviewer, (IEEE VR) The IEEE conference on Virtual Reality + 3D User Interfaces, 2022
- Reviewer, (MobileHCI) The ACM International Conference on Mobile Human-Computer Interaction, 2022
- Reviewer, (C&C) The ACM conference on Creativity & Cognition, 2022
- Reviewer, International Journal of Human-Computer Interaction, 2022
- Reviewer, Ergonomics, 2015

- Reviewer, Journal of Intelligent and Robotics Systems, 2014
- Advisory Committee, The Passport Project Student Success Initiative, Digital Studio for the Public Humanities, The University of Iowa, 2017 – 2019