

Xiangmin Fan

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EDUCATION

University of Pittsburgh, USA Aug. 2011-Apr. 2017

- Ph.D. Candidate in Computer Science
- Dissertation Topic: Scalable Teaching and Learning via Intelligent User Interfaces
- Committee: Dr. Jingtao Wang, Dr. Diane Litman, Dr. Milos Hauscrecht, Dr. Muhsin Menekse

Nanyang Technological University, Singapore Sep. 2010-Dec. 2010

- Undergraduate Exchange Student

Shandong University, China Sep. 2007-Jun. 2011

- Bachelor of Science in Computer Science

EMPLOYMENT

University of Pittsburgh, USA Aug. 2011-Present

- Graduate Student Researcher in MIPS Lab
- Advisor: Dr. Jingtao Wang

Bosch Research and Technology Center (Pittsburgh), USA May 2016-Aug. 2016

- Research Intern (Crowd Computing)
- Mentors: Dr. Lisa Yu and Dr. Ji Eun Kim

Bosch Research and Technology Center (Pittsburgh), USA May 2015-Aug. 2015

- Research Intern (Social Internet of Things)
- Mentor: Dr. Ji Eun Kim

RESEARCH INTERESTS

Human-Computer Interaction, Mobile Interfaces, Intelligent Interactive Systems, Education/Learning Technology, Machine Learning and its Application in User Interfaces.

PUBLICATIONS

Xiangmin Fan, Wencan Luo, and Jingtao Wang. **Mastery Learning of Second Language Through Asynchronous Modeling of Native Speakers in a Collaborative Mobile Game**. In *Proceedings of the 35th Annual ACM Conference on Human Factors in Computing Systems (CHI 2017)*.

Xiangmin Fan, Wencan Luo, Muhsin Menekse, Diane Litman and Jingtao Wang. **Scaling Reflection Prompts in Large Classrooms via Mobile Interfaces and Natural Language Processing**. In *Proceedings of 22nd ACM Conference on Intelligent User Interfaces (IUI 2017)*.

Ji Eun Kim, **Xiangmin Fan**, and Daniel Mosse. **Empowering End Users for Social Internet of Things**. In *Proceedings of 2017 IEEE Second International Conference on Internet-of-Things Design and Implementation (IoTDI 2017)*.

Xiangmin Fan, Youming Liu, Nan Cao, Jason Hong, and Jingtao Wang. **MindMiner: A Mixed-Initiative Interface for Interactive Distance Metric Learning**. In *Proceedings of the 15th IFIP International Conference on Human-Computer Interaction (INTERACT 2015)*.

Xiangmin Fan, Wencan Luo, Muhsin Menekse, Diane Litman and Jingtao Wang. **CourseMIRROR: Enhancing Large Classroom Instructor-Student Interactions via Mobile Interfaces and Natural Language Processing**. In *Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems (CHI EA 2015)*.

Xiangmin Fan, and Jingtao Wang. **BayesHeart: A Probabilistic Approach for Robust, Low-Latency Heart Rate Monitoring on Camera Phones**. In *Proceedings of 20th ACM Conference on Intelligent User Interfaces (IUI 2015)*.

Xiangmin Fan, Youming Liu, Nan Cao, Jason Hong, and Jingtao Wang. **MindMiner: Quantifying Entity Similarity via Interactive Distance Metric Learning**. In *Proceedings of 20th ACM Conference on Intelligent User Interfaces Companion (IUI Companion 2015)*.

Wencan Luo, **Xiangmin Fan**, Muhsin Menekse, Jingtao Wang, and Diane Litman. **Enhancing Instructor-Student and Student-Student Interactions with Mobile Interfaces and Summarization**. In *Proceedings of the 2015 Conference of the North American Chapter of the Association for Computational Linguistics – Human Language Technologies (NAACL 2015)*.

TALKS & PRESENTATIONS

Scalable Teaching and Learning via Intelligent User Interfaces. Invited Talk, HCI Group @Lenovo Research, Beijing, China. *Dec. 23rd, 2016*

Scalable Teaching and Learning via Intelligent User Interfaces. Invited Talk, School of Computer Science and Technology, Shandong University, Jinan, China. *Dec. 20th, 2016*

Scalable Teaching and Learning via Intelligent User Interfaces. Invited Talk, Pervasive Interaction Lab@ Tsinghua University, Beijing, China. *Dec. 19th, 2016*

Scalable Teaching and Learning via Intelligent User Interfaces. Invited Talk, Institute of Software, Chinese Academy of Sciences, Beijing, China. *Dec. 19th, 2016*

Scalable Teaching and Learning via Intelligent User Interfaces. Guest Lecture for CS2610: Research Topics in Human Computer Interaction, Department of Computer Science, University of Pittsburgh, Pittsburgh, USA. *Nov. 15th, 2016*

Mastery Second Language Learning through Asynchronous Modeling of Native Speakers in a Collaborative Mobile Game. CS Day Poster Presentation (**Winner of CS Day Poster Competition**), Department of Computer Science, University of Pittsburgh, Pittsburgh, USA. *Mar. 18th, 2016*

Intelligent User Interfaces for Scalable Teaching and Learning. Guest Lecture for CS2610: Research Topics in Human Computer Interaction, Department of Computer Science, University of Pittsburgh, Pittsburgh, USA. *Nov. 11th, 2015*

Socialite: End-User Programming in the Social Internet of Things. Internship Talk, Bosch Research and Technology Center, Pittsburgh, USA. *Aug. 17th, 2015*

CourseMIRROR: Enhancing Large Classroom Instructor-Student Interaction via Mobile Interfaces and Natural Language Processing. Invited Exhibition and Demonstration, 16th IEEE International Conference on Mobile Data Management, Pittsburgh, USA. *Jun. 16th, 2015*

CourseMIRROR: Enhancing Large Classroom Instructor-Student Interaction via Mobile Interfaces and Natural Language Processing. Poster Presentation, The 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI 2015), Seoul, Korea. *Apr. 21st, 2015*

- MindMiner: Quantifying Entity Similarity via Interactive Distance Metric Learning.** Demonstration, The 20th ACM Conference on Intelligent User Interfaces Companion (IUI 2015), Atlanta, USA. *Mar. 30th, 2015*
- BayesHeart: A Probabilistic Approach for Robust, Low-Latency Heart Rate Monitoring on Camera Phones.** Oral Presentation, The 20th ACM Conference on Intelligent User Interface (IUI 2015), Atlanta, USA. *Apr. 1st, 2015*
- CourseMIRROR: Enhancing Large Classroom Instructor-Student Interaction via Mobile Interfaces and Natural Language Processing.** CS Day Lightning Talk (**Winner of CS Day Graduate Student Research Competition**), Department of Computer Science, University of Pittsburgh, Pittsburgh, USA. *Mar. 27th, 2015*
- Next Generation Mobile Language Learning – Tutoring Systems and Infrastructure Support.** Invited Exhibition and Demonstration. The Inaugural Meeting and Symposium of the Global Learning Council (2014), Carnegie Mellon University, Pittsburgh, USA. *Sep. 4th, 2014*
- Designing Engaging Camera Based Mobile Games for Implicit Heart Rate Monitoring.** Poster Presentation, The 32nd Annual ACM Conference on Human Factors in Computing Systems (CHI 2014), Toronto, Canada. *Apr. 28th, 2014*
- MindMiner: A Mixed-Initiative Interface for Interactive Distance Metric Learning.** CS Day Lightning Talk (**Winner of CS Day Graduate Student Research Competition**), Department of Computer Science, University of Pittsburgh, Pittsburgh, USA. *Mar. 21st, 2014*

TEACHING EXPERIENCE

- Teaching Assistant**, Research Topics in HCI (CS2610), University of Pittsburgh
- Instructor: Dr. Jingtao Wang *Fall 2016*
- Teaching Assistant**, Introduction to System Software (CS449), University of Pittsburgh
- Instructor: Dr. Wonsun Ahn *Fall 2016*
- Teaching Assistant**, Interface Design Methodology (CS1635), University of Pittsburgh
- Instructor: Dr. Jingtao Wang *Spring 2014*
- Recitation Instructor**, Introduction to System Software (CS449), University of Pittsburgh
- Instructor: Dr. Jonathan Misurda *Spring 2014*
- Teaching Assistant**, Structure of Programming Languages (CS1621), University of Pittsburgh
- Instructor: Dr. Youtao Zhang *Fall 2013*
- Recitation Instructor**, Data Structures (CS445), University of Pittsburgh
- Instructor: Dr. John Ramirez *Spring 2013*
- Recitation Instructor**, Intermediate Programming Using Java (CS401), University of Pittsburgh
- Instructor: Dr. John Aronis *Fall 2012*
- Recitation Instructor**, Data Structures (CS445), University of Pittsburgh
- Instructor: Dr. George Novacky *Summer 2012*
- Teaching Assistant**, Introduction to Simulations (CS1538), University of Pittsburgh
- Instructor: Dr. Rebecca Hwa *Fall 2011*
- Teaching Assistant**, Structure of Programming Languages (CS1621), University of Pittsburgh
- Instructor: Dr. Youtao Zhang *Fall 2011*

SOFTWARE RELEASES

CourseMIRROR: A Mobile System to Promote and Scale Reflection Prompts in Large Classes

- Free for Classroom Usage, Deployed in 10 Classes (400+ Students)
- iOS & Android Versions Available: <http://www.coursemirror.com>

BayesHeart: A Robust, Low-Latency Heart Rate Monitoring Algorithm on Camera Phones

- Source Code & Dataset Available: <http://mips.lrdc.pitt.edu/bayesheart/>

Busgazer: A Realtime Transit App for Pittsburghers

- Serve 20k+ Local Users
- iOS & Android Versions Available: <http://www.busgazer.com>

CrowdGrammar: Leveraging Crowd Workers for Proofreading Tasks

- <http://www.crowdgrammar.com>

HONORS & AWARDS

- Winner of Bezirk Hackathon, Bosch Research and Technology Center (Pittsburgh), 2016
- Winner of CS Day Poster Competition, Department of Computer Science, University of Pittsburgh, 2016
- Winner of CS Day Research Competition, Department of Computer Science, University of Pittsburgh, 2015
- Student Travel Grants, 16th IEEE International Conference on Mobile Data Management, 2015
- Student Travel Grants, Department of Computer Science, University of Pittsburgh, 2015
- Winner of CS Day Research Competition, Department of Computer Science, University of Pittsburgh, 2014
- Graduate Student Fellowship, University of Pittsburgh, 2012
- Honorable Mentions, Mathematical Contest in Modeling (MCM/ICM 2010), USA, 2010
- CVIC SE Scholarship, CVIC Software Engineering Co., Ltd., 2010
- Scholarship of Scientific Research Innovation, Shandong University, 2010
- 2nd Grade Award of the Students' Scholarship, Shandong University, 2009
- Honorable Mentions, National Undergraduate Mathematical Contest in Modeling, China, 2009
- Weichai Power Scholarship, Weichai Power Co., Ltd., 2009
- Social Work Scholarship, Shandong University, 2008
- 1st Grade Award of the Students' Scholarship, Shandong University, 2008

PROFESSIONAL ACTIVITIES

- Poster Co-Chair: Chinese CHI 2017
- Reviewer: CHI 2017, IUI 2017, CHI 2016, CHI 2015, ICMI 2015, THIS
- Student Volunteer: CHI 2016, CHI 2015, CHI 2014
- Coordinator: Weekly HCI Group Seminar, University of Pittsburgh, 2014-2015

REFERENCES

- Dr. Jingtao Wang, Assistant Professor, University of Pittsburgh, jingtaow@cs.pitt.edu
- Dr. Muhsin Menekse, Assistant Professor, Purdue University, menekse@purdue.edu

- Dr. Ji Eun Kim, Principle Research Scientist, Bosch Research, JiEun.Kim@us.bosch.com
- Dr. Lisa Yu, Research Scientist, Bosch Research, Lisa.Yu@us.bosch.com