

Xiangmin Fan

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EMPLOYMENT

Chinese Academy of Sciences, China Jul. 2017- Present

- Supported by CAS 100 Talents Program (中科院百人计划)
- Associate Professor at the University of Chinese Academy of Sciences
- Associate Researcher at the Institute of Software, Chinese Academy of Sciences

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

- 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

EDUCATION

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

- Ph.D. 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

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

- Organizer: Workshop on Deep Learning Visualization @ ICML 2017
- Co-Chair: Chinese CHI 2018 (Poster and Demo), Chinese CHI 2017 (Poster and Demo)

- Reviewer: CHI 2018, IUI 2018, CHI 2017, IUI 2017, CHI 2016, CHI 2015, ICMI 2015, TIS
- 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