XIAOYI TIAN

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EDUCATION

University of Florida *2020 - present*
Ph.D. in Human-Centered Computing

University of Pittsburgh *2018 - 2020*
M.S. in Information Science

Anhui University, China *2014 - 2018*
B.Mgmt. in Management Science

EXPERIENCE

Graduate Research Assistant, LearnDialogue Lab, University of Florida *08/2020 - present*
Advisor: Kristy E. Boyer
Subject: Learning analytics and student modeling for block-based programming environments

Research Intern, Human-Computer Interaction Institute, Carnegie Mellon University *10/2019 - 07/2020*
Supervisors: Michael Madaio, Amy Ogan
Subject: Mobile literacy technology *Allo Alphabet* in rural Côte d'Ivoire

Research Assistant, Facet Lab, University of Pittsburgh *04/2019 - 05/2020*
Supervisor: Erin Walker
Subject: Rapport and dominance behaviors in human-robot dialogue

PUBLICATIONS

Let's Talk It Out: A Chatbot for Effective Study Habit Behavioral Change
Xiaoyi Tian, Zak Risha, Ishrat Ahmed, Arun Balajiee Lekshmi Narayanan, Jacob Biehl.
Submitted to *The 23rd ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*. 2020. *Major Revision*

Understanding Rapport over Multiple Sessions with a Social, Teachable Robot
Xiaoyi Tian, Nichola Lubold, Leah Friedman, Erin Walker.
Proceedings of 21th International Conference on Artificial Intelligence in Education (AIED). July, 2020.

Dominance as an Indicator of Rapport and Learning in Human-Agent Communication
Amanda Buddemeyer, **Xiaoyi Tian**, Erin Walker.
Student Research Workshop in *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL)*. July, 2020.

Online Educational Information Quality Modeling and Perceived Difference Comparison
Xiaoyi Tian, Jing Li, Qin Yu.
In *Journal of Hefei Normal University.* 2016, 34(5).

PROJECTS

PRIME: Student Modeling for Block-Based Programming Environments *09/2020 - present*
Collaborative project, University of Florida

PRIME is an intelligent system which engages STEM undergraduate students in computer science. My work included developing the block-based programming system using Microsoft Blazor framework as well as building student models on student's trajectory solving programming tasks in order to provide effective and timely problem-solving hints and motivational support.

StudyBuddy: a Chatbot for Effective Study Habits *09/2019 - present*
Collaborative project (lead), University of Pittsburgh

This project investigated the feasibility of using chatbots for influencing study behavior of college freshmen majoring in computer science. We designed *StudyBuddy*, a chatbot prototype deployed in Slack, that periodically sends tips, provides assessment of students' study habits via surveys, helps the students break down assignments, and sends reminders. We evaluated our prototype through utility studies with both computer science students and faculty and finally concluded with design recommendations.

Learning Curve Analysis and Bayesian Modeling on Pre-literacy Skills *10/2019 - 07/2020*
Independent research, Carnegie Mellon University

In this project, I analyzed curriculum progression of *Allo Alphabet*, a literacy system deployed in rural Côte d'Ivoire. My work involved modeling students' phonological awareness skills using Bayesian Knowledge Tracing (BKT) and investigating factors that associate with differing the learnabilities of children's pre-literacy skill. With our modeling, we can provide more adaptive support for different individuals in the literacy learning systems.

Multi-sessions Teachable Robot *04/2019 - 04/2020*
Independent research, University of Pittsburgh

Social robots have been shown to be effective educational tools. We reported on a case study in which 7 middle school students explained mathematics concepts to an intelligent social robot named Emma for five sessions. We modeled learners' rapport-building linguistic strategies to understand whether the ways middle school students build rapport with the robot over time follow the same trends as human conversation, and how individual differences might mediate the rapport between human and robot.

SKILLS

Programming Languages and Frameworks
Java, Python, Markdown, C, VB, SQL, MATLAB, Blazor

User-centered Research
Interview, survey, usability test, qualitative coding, content analysis

Statistical Analysis
R, SPSS, Stata

AWARDS AND HONORS

Outstanding Undergraduate Thesis (Top 1% in the Class), Anhui University *07/2018*
Academic Excellence Scholarship, Anhui University *2015 & 2016 & 2017*
'Merit Student', Anhui University *2015 & 2017*

ACADEMIC SERVICES

Reviewer of CSCW 2020