

Ishrat Ahmed

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EXPERIENCE

- **University of Pittsburgh** Pittsburgh, Pennsylvania
Graduate Student Researcher, FACET Lab, Learning Research and Development Center August 2018 - Present
 - **Cross-Platform Adaptive Collaborative Learning Support:** Modeling student interaction and predicting their collaborative behavior across multiple platforms to provide personalized support to students.
- **Arizona State University** Tempe, Arizona
Graduate Research Assistant, 2 Sigma Learning Lab August 2017 - August 2018
 - **Intelligent Programmable Robots:** Designing a social dialogue framework for programmable robots as pedagogical agents to facilitate student motivation and learning.

EDUCATION

- **University of Pittsburgh** Pittsburgh, Pennsylvania
PhD student in Computer Science; GPA: 3.72/4.00 August 2018 - April 2022 (Expected)
- **Bangladesh University of Engineering and Technology** Dhaka, Bangladesh
Bachelor of Science in Computer Science and Engineering; GPA: 3.61/4.00 March 2009 - July 2014

TECHNICAL SKILLS

- **Languages:** Python (Pandas, NumPy, Scikit-learn, BeautifulSoup, NLTK, Spacy, DialogAct, Keras, Tensorflow), Java
- **Web Technologies:** Django-Python, HTML/DOM, Javascript, jQuery/Ajax, REST API, Java Servlets
- **UX Methods:** Designing Interviews & Surveys, Storyboarding, Persona & Scenario, Hi-fi & Low-fi Prototyping, Usability Testing, Cognitive Walkthrough, Co-Design, Speed-Dating, Design Based Research
- **Data Analysis:** Qualitative Methods (Data Coding), Quantitative Methods (Statistical Analysis)
- **Tools/Databases:** Git, SPSS, Pandorabot, Figma, Atlas.ti, MySQL

PROJECTS

- **UbiCoS:** Designed, developed, and deployed an interactive digital textbook; Conducted studies and interviews; Performed qualitative and quantitative analysis on student participation and interview data; Built a machine learning model to predict students' participation. [Web Development|UX Methods|Spacy]
- **StudyBuddy: Chatbot for Behavioral Change:** Investigated freshman study habits by designing interviews and surveys, developed Hi-fi & Low-fi intervention prototype, conducted utility study. [UX Methods]
- **Fake News Detection:** Utilized Stance Detection to detect fake news using LSTM models and achieved a 87% accuracy with 100 hidden units. [Python|Keras]
- **ROBIN:** Designed & implemented a dialogue based iOS application to provide feedback and encouragement on programming tasks to students using LEGO Mindstorm robots. [Java|Swift]
- **Support Vector Machines for Multiclass-Classification:** Implemented an SVM model for classifying multiclass Handwritten Datasets, VidTIMIT Datasets and HumanActivity Datasets. [Matlab]
- **Intelligent Classroom for Autistic Children:** Implemented a classroom technology to incorporate autistic children into regular classrooms and provide personalized learning experience. [Java]

PUBLICATIONS

- **Ahmed, I.,** Clark, A., Metzger, S., Wylie, R, Bergner, Y., & Walker, E. (2021). *Interactive Personas: Towards the Dynamic Assessment of Student Motivation within ITS*. In International Conference on Artificial Intelligence in Education (pp. 43-47). Springer, Cham.
- Tian, X., Risha, Z., **Ahmed, I.**, Narayanan, A., and Biehl, J. (2021). *Let's Talk It Out: A Chatbot for Effective Study Habit Behavioral Change*. Proc. ACM Hum.-Comput. Interact. 5, CSCW1, Article 97.

- Mawasi, A., **Ahmed, I.**, Walker, E., Wang, S., Marasli, Z., Whitehurst, A., & Wylie, R. (2020, June). *Using Design-Based Research to Improve Peer Help-Giving in a Middle School Math Classroom*. In International Conference of the Learning Sciences (pp. 1189-1196).
- **Ahmed, I.**, Mawasi, A., Wang, S., Wylie, R., Bergner, Y., Whitehurst, A., & Walker, E. (2019, June). *Investigating Help-Giving Behavior in a Cross-Platform Learning Environment*. In International Conference on Artificial Intelligence in Education (pp. 14-25). Springer, Cham.
- **Ahmed, I.**, Girotto, V., Mawasi, A., Whitehurst, A., Wylie, R., & Walker, E. (2019). *Co-Design for Learner Help-Giving Across Physical and Digital Contexts*. In International Conference on Computer Supported Collaborative Learning (pp. 545-548).
- **Ahmed, I.**, Lubold, N., & Walker, E. (2018, June). *ROBIN: using a programmable robot to provide feedback and encouragement on programming tasks*. In International Conference on Artificial Intelligence in Education (pp. 9-13). Springer, Cham.

ADDITIONAL EXPERIENCE

- **Fellowship:** Received Fellowship from Computer Science Department, University of Pittsburgh, 2021
- **Leadership & Mentoring:** Led 5+ students to work in different components of UbiCoS Project (Jan 2019-Present)
- **Full Stack Web Developer:** Developed a web-based digital textbook used by middle school students in Phoenix (Dec 2018-Present)
- **CHI-Reviewer:** Reviewed a conference paper for CHI, Hawaii, USA, 2020
- **Buddy:** Cyberlearning sponsored by the National Science Foundation and hosted by CIRCL, Virginia, USA, 2019
- **Nominee:** Best Student Poster Nomination at Artificial Intelligence in Education, London, UK, 2018