human-centered design, online learning, AI for education, music technology

Education

University of British Columbia

Vancouver, BC, Canada

Sep. 2019 - Current

PHD (COMPUTER SCIENCE)

- Supervised by Professor Dongwook Yoon
- · Trainee of Designing for People Research Cluster

Harvey Mudd College

Claremont, CA, USA

Sep. 2015 - May. 2019

B.S. (COMPUTER SCIENCE AND MATHEMATICS)

- GPA 3.82/4.00 (graduated with High Distinction)
- Recipient of So International Scholarship for 4 years (from academic year 2015-2016 to academic year 2018-2019.)
- Recipient of John Greever Clinic Prize for Outstanding Mathematics Clinic Individual in 2019

Selected Projects/Publications

Debate Chatbots to Facilitate Critical Thinking on YouTube: Social Identity and Conversational Style Make A Difference

Vancouver, BC, Canada

PUBLISHED: ACM CHI CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS, CHI 2024 (BEST PAPER AWARD)

September, 2022 - September, 2023

- **Problem:** This paper proposes using large-language model (LLM) to implement a debate partner to mitigate algorithm-induced filter bubble problem in social media and focuses on designing the personas and behaviors of the agent.
- · I conducted literature review, designed and implemented the prototype, and conducted the evaluative study.
- Supervised by Professor Dongwoon Yoon. (Department of Computer Science, University of British Columbia)

Scripted Vicarious Dialogues: Educational Video Augmentation Method for Increasing Isolated Students' Engagement

Vancouver, BC, Canada

PUBLISHED: ACM CHI CONFERENCE ON HUMAN FACTORS IN COMPUTING SYSTEMS, CHI 2023

June, 2021 - September, 2022

- **Problem:** This paper proposes embedding scripted interactions of virtual characters into lecture videos to increase the learner's engagement and learning gain via vicarious learning.
- · I conducted formative study, derived design guidelines, designed the prototype, and conducted the evaluative study
- Supervised by Professor Dongwoon Yoon. (Department of Computer Science, University of British Columbia)

Using cell phone pictures of sheet music to retrieve MIDI passages

Claremont, CA, USA

PUBLISHED: IEEE TRANSACTIONS ON MULTIMEDIA, VOLUME: 22, ISSUE: 12, DEC. 2020.

May, 2018 - Oct, 2018

- Problem: This project aims to synchronize scanned sheet music to a MIDI performance of the same piece, using deep learning.
- I created dataset, implemented the baseline system, and ran experiments to improve the proposed system.
- · Supervised by Professor Timothy Tsai. (Music Information Retrieval Lab, Engineering Department, Harvey Mudd College)

AR Music Visualizers: Application Space and Design Guidelines

Vancouver, BC, Canada

Published (Extended abstract): ACM CHI Conference on Human Factors in Computing Systems, CHI 2022.

Jan. 2021 - Apr. 2021

- **Problem:** This project investigates the applications and potential benefits of augmented-reality (AR) music visualizers and develop guidelines for designing such applications.
- I interviewed expert developers and researchers in the field and performed qualitative analysis to derive the findings.
- Supervised by Professor Dongwoon Yoon. (Department of Computer Science, University of British Columbia)

Work Experience ____

Instructor Vancouver, Canada

DEPARTMENT OF COMPUTER SCIENCE, UNIVERSITY OF BRITISH COLUMBIA

September - December 2023

• Course: CPSC 344 - Introduction to HCI Methods (2023 Fall semester)

· I organized class contents, facilitated a student-centered, active learning classroom, and supervised teaching assistants in running workshops.

Teaching Assistant Vancouver, Canada

DEPARTMENT OF COMPUTER SCIENCE, UNIVERSITY OF BRITISH COLUMBIA

January 2021 - May 2023

• Course: Advanced Methods for Human Computer Interaction (2021-2023 Spring semesters)

• I ran student's workshop activities, supervised student's course projects, and graded student's assignments and exams.

November 28, 2024 Thitaree Tanprasert · Résumé