

Fanjie Li

☎ (+852) 5441-3694 • ✉ fanjie@connect.hku.hk • 🌐 Homepage: <https://fanjie-li.netlify.app/>

EDUCATION

Master's Degree, *University of Hong Kong, Hong Kong S.A.R., China* Sep. 2018 - Feb. 2020

- M.Sc., Library and Information Management: Data Science specialist strand (GPA: 4.17/4.30)

Bachelor's Degrees, *Sichuan University, Chengdu, China* Sep. 2014 - Jul. 2018

- B.Mgt., Information Resource Management (GPA: 3.79/4)
- B.Eng., Software Engineering (GPA: 3.73/4)

RESEARCH INTERESTS

Learning analytics, Human-centered informatics, Affective computing, Learning sciences

APPOINTMENTS & SERVICES

Conference Reviewer

- The 22nd International Society for Music Information Retrieval Conference (*ISMIR '21*) Jun. 2021
- The 21st International Society for Music Information Retrieval Conference (*ISMIR '20*) Jun. 2020

Research Assistant

- CCMIR Lab (Director: Dr. Xiao Hu), *University of Hong Kong, HK* Mar. 2020 – Jun. 2021

Research Intern

- CCMIR Lab (Director: Dr. Xiao Hu), *University of Hong Kong, HK* Jul. - Aug., 2017/2018
- Social Sensing Lab (Director: Dr. Dong Wang), *University of Notre Dame, USA* Jul. - Aug., 2016
- Supervisor: Prof. Guihua Li, *Sichuan University, CHN* Jul. 2016 – Jun. 2018

PUBLICATIONS

1. **Li, F.**, Xiao, Z., Ng, T.D.J., & Hu, X. (2021). Exploring Interdisciplinary Data Science Education for Undergraduates: Preliminary Results. In *Diversity, Divergence, Dialogue: Proceedings of iConference 2021*. Lecture Notes in Computer Science, vol 12645 (pp. 551-561).
2. **Li, F.**, Wang, Z., Ng, T.D.J., & Hu, X. (2021). Studying with Learners' Own Music: Preliminary Findings on Concentration and Task Load. In *Proceedings of the 11th International Conference on Learning Analytics & Knowledge (LAK '21)* (pp. 613-619).
3. **Li, F.**, Hu, X., & Que, Y. (2020). Learning with Background Music: A Field Experiment. In *Proceedings of the 10th International Conference on Learning Analytics & Knowledge (LAK '20)* (pp. 224-229).
4. Hu, X., **Li, F.**, & Kong, R. (2019). Can Background Music Facilitate Learning? Preliminary Results on Reading Comprehension. In *Proceedings of the 9th International Conference on Learning Analytics & Knowledge (LAK '19)* (pp. 101-105).
5. **Li, F.** & Hu, X. (2019). A Field Experiment on Music Preference during Learning. Presented at *Centre for Information Technology in Education Research Symposium 2019 (CITERS '19)*, Hong Kong.
6. Hu, X., **Li, F.**, & Ng, T.D.J. (2018). On the Relationships between Music-induced Emotion and Physiological Signals. In *Proceedings of the 19th International Society for Music Information Retrieval Conference (ISMIR '18)* (pp. 362-369).
7. **Li, F.**, Ng, T. D. J., & Hu, X. (2017). Emotion-Aware Music Information Retrieval Based on Physiological Signals and User Profile. Presented at *ISMIR '17 (Late-Breaking/Demo)*.

8. **Li, F. & Li, G.** (2017). Deep Reading: Controversy and Reconsideration. *Journal of the National Library of China*, 26(6), 16-25. doi: 10.13666/j.cnki.jnlc.2017.06.002.

RESEARCH EXPERIENCE

Developing and Evaluating Interdisciplinarity and Internationalization in the Curriculum of Bachelor of Arts and Sciences in Social Data Science

Aug. 2020 - Present

- (1) A document analysis of the disciplinary breadth and depth of existing SDS curricula using Text Mining and Epistemic Network Analysis. (2) Developed repositories of interdisciplinary teaching materials (e.g., datasets, cases, Jupyter notebook) in Social Data Science. (3) Developed a curriculum assessment framework and associated instruments. (PI: Dr. Xiao Hu)

Leveraging Background Music for Learning: An Interdisciplinary Approach

Jul. 2018 – Jun. 2021

- *Experiment 1*: A laboratory experiment that probes the effects of five different types of background audio on reading comprehension at both behavioral and physiological level. (PI: Dr. Xiao Hu)
- *Experiment 2*: A one-week field experiment that probes how students media multitasking with background music, in light of cognitive-affective theory of learning with media. (Master's thesis; Supv.: Dr. Xiao Hu)
 - 1) Designed and developed the Moody music app for behavioral tracking and experience sampling.
 - 2) Extracted acoustic music features (e.g., rhythm, timbre) via music processing techniques, and estimated music emotion (i.e., happiness, energy) based on low-level music features using SVM.
 - 3) Implemented a set of computer-based cognitive tests for assessing participants' working memory capacity and multitasking ability using PsychoPy and other Python packages.
 - 4) Analysed relationships among music-, context-, and learner-related variables using statistical methods.
- *Experiment 3*: A pilot study that extends *experiment 2* by employing an authentic music library (Spotify).

Music Recommender Systems Based on Physiological Signals

Jul. 2017 – Jun. 2021

- (1) Designed and performed a user experiment to build a dataset with synchronized physiological signals (BVP, HR, IBI, EDA, TEMP) and user-labelled music-induced emotion. (2) Built the music emotion recognition (MER) model using physiological features and music features. (PI: Dr. Xiao Hu)
- Completed the undergraduate thesis "Towards emotion-aware music information retrieval: Detecting emotional responses to music based on physiological sensing" under the supervision of Prof. Yuan Zhao, Prof. Tao Lin, and Dr. Xiao Hu.

Deep Reading: Theoretical Conceptualization and Implications for Practices

Jul. 2016 - Jun. 2018

- Discussed (i) varying perspectives on the conceptualization of *deep reading* based on a systematic literature review and K-Means clustering of expert survey responses and (ii) the mechanisms underlying *deep reading* in terms of (a) the cognitive-affective process inside the reading brain and (b) reading as a social process.
- Participated in a grounded theory study regarding *youth reading engagement*. (PI: Prof. Guihua Li)
- Participated in the design and implementation of a reading planner app: EverRead (supported by the National College Students' Innovation and Entrepreneurship Training Program).

HONOURS & AWARDS

A. SCHOLARSHIP

- LAK Conference Scholarship, Society for Learning Analytics Research (SoLAR) (2021)
- Women in MIR (WiMIR) Grants, ISMIR Conference (2017)
- Wang-Wen-Guo Scholarship, Sichuan University (2017)
- SCU First Prize Scholarship, Sichuan University (2016)
- National Scholarship, Ministry of Education of the People's Republic of China (2015)

B. OTHERS - SELECTED

- Dean's Honours List, University of Hong Kong (2020)
- Graduation with Distinction, University of Hong Kong (2020)
- Outstanding Undergraduate Thesis Award, Sichuan University (2018)
- Outstanding Graduates Award, Sichuan University (2017)
- Outstanding Students Award, Sichuan University (2015, 2016, 2017)
- Honorary admission, Wu Yuzhang Honors College at Sichuan University (Top 1.5%) (2015)

SKILLS

- Python & Data science packages (e.g., Pandas, NumPy, Scikit-Learn, NetworkX), R, SQL
- Jupyter Notebook, Gephi, RapidMiner, RapidProM, Statistical software (e.g., Jamovi)
- Music signal processing, Physiological signal processing, Visualization tools (Plotly, Seaborn, ggplot2)
- App development (React Native, Swift, Java), Web development (HTML, CSS, JavaScript, Flask)
- UI/UX design (Axure), Photography, Musical instruments (Guzheng, Ukulele)