# LIZI LIAO

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🔗: <https://liziliao.github.io/>; 🎧: <https://github.com/liziliao>

## ABOUT ME

My research interest covers dialogue systems and multimedia analysis. Specifically, I aim at developing models that can understand human inputs in various forms (*e.g.* textual & visual) and communicate with humans to perform certain tasks.

My research can be summarized as the following aspects:
1) **multimodal dialogue systems**: belief state tracking, contextualized response generation, policy learning *etc.*
2) **recommendation**: neural collaborative filtering, conversational recommendation *etc.*
3) **multimedia analysis in fashion**: cross-modal retrieval, fashion compatibility modeling, fashion chatbot *etc.*

## EDUCATION

**National University of Singapore** — 2015.8 - 2019.11
Ph.D. in Integrative Sciences & Engineering.
Advisor: Prof. Tat-Seng Chua

**Beijing Institute of Technology** — 2007.9 - 2011.6
B.Eng. in Computer Science & Technology
Top 10% of the cohort

## RESEARCH EXPERIENCE

**Research Fellow** — 2019.11 - now
School of Computing, National University of Singapore, Singapore
Director: Prof. Tat-Seng Chua

**Research Intern** — 2018.6 - 2018.9
FXPAL, Palo Alto, USA
Advisor: Lyndon Kennedy & Lynn Wilcox

**Research Assistant** — 2013.8 - 2015.7
LARC, Singapore Management University, Singapore
Advisor: Prof. Jing Jiang & Prof. Ee-Peng Lim

**Research Assistant** — 2011.9 - 2013.7
Beijing Institute of Technology, China
Advisor: Prof. Heyan Huang

## TEACHING EXPERIENCE

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|---|---|
| **Co-Lecturer** | NUS SOC 2018 Spring, CS4242 Social Media Computing |
| **Teaching Assistant** | NUS SOC 2016 Autumn, CS2108 Introduction to Media Computing |
| **Organizer** | NExT Weekly Dialogue Reading Group |
| **Coordinator** | Parallel Session: Projects on Trust in the 6th NExT++ Workshop 2019 |

## PROFESSIONAL SERVICES

Program Design : ACM Multimedia(2019)

Senior Program Committee: IJCAI(2021)

Program Committee: SIGIR(2017-2021), MM(2020-2021), ACL(2020-2021), EMNLP(2020-2021), AAAI(2020)

Reviewer: TKDE, TMM, TOIS, JAIR, TKDD, KBS

## SELECTED AWARDS

| | |
|---|---|
| Best Paper Final List, ACM Multimedia | 2018 |
| Dean's Graduate Research Excellence Award, NUS | 2019 |
| Research Achievement Award, NUS | 2018 |
| National Scholarship, Beijing Institute of Technology | 2013 |

## MENTORING

Zheng Zhang (PhD student, Tsinghua University)

Yunshan Ma (PhD student, NUS)

Le Hong Long (Undergraduate, NUS)

Tongyao Zhu (Undergraduate, NUS)

Kaili Mao (Visting student, BUAA)

## SELECTED PUBLICATIONS [GOOGLE SCHOLAR]

[1] **Lizi Liao**, Le Hong Long, Zheng Zhang, Minlie Huang, Tat-Seng Chua. MMConv: An Environment for Multimodal Conversational Search across Multiple Domains. SIGIR 2021 📄

[2] **Lizi Liao**, Tongyao Zhu, Le Hong Long, Tat-Seng Chua. Multi-domain Dialogue State Tracking with Recursive Inference. WWW 2021 📄

[3] Kaili Mao, Jianwei Niu, Xuefeng Liu, Shaojie Tang, **Lizi Liao**, Tat-Seng Chua. A Patience-aware Recommendation Scheme for Shared Accounts on Mobile Devices. TKDE 2021 📄

[4] **Lizi Liao**, Ryuichi Takanobu, Yunshan Ma, Xun Yang, Minlie Huang, Tat-Seng Chua. Topic-Guided Relational Conversational Recommender in Multiple Domains. TKDE 2020 📄

[5] **Lizi Liao**, Le Hong Long, Yunshan Ma, Wenqiang Lei, Tat-Seng Chua. Dialogue State Tracking with Incremental Reasoning. TACL 2020 📄

[6] Zheng Zhang, **Lizi Liao**\*, Minlie Huang, Xiaoyan Zhu, Tat-Seng Chua. Neural Multimodal Belief Tracker with Adaptive Attention for Dialogue Systems. WWW 2019 📄

[7] Yunshan Ma, Xun Yang, **Lizi Liao**, Yixin Cao, Tat-Seng Chua. Who, Where, and What to Wear? Extracting Fashion Knowledge from Social Media. ACM Multimedia 2019 📄

[8] **Lizi Liao**, Yunshan Ma, Xiangnan He, Richang Hong, Tat-Seng Chua. Knowledge-aware Multimodal Dialogue Systems. ACM Multimedia 2018 📄 (Best Paper Final List)

[9] **Lizi Liao**, Xiangnan He, Bo Zhao, Chong-Wah Ngo, Tat-Seng Chua. Interpretable Multimodal Retrieval for Fashion Products. ACM Multimedia 2018 📄

[10] **Lizi Liao**, Xiangnan He, Hanwang Zhang, Tat-Seng Chua. Attributed Social Network Embedding. TKDE 2018 📄

[11] Xiangnan He, **Lizi Liao**, Hanwang Zhang, Liqiang Nie, Xia Hu, Tat-Seng Chua. Neural Collaborative Filtering. WWW 2017 📄

[12] **Lizi Liao**, Xiangnan He, Zhaochun Ren, Liqiang Nie, Huan Xu, Tat-Seng Chua. Representativeness-aware Aspect Analysis for Brand Monitoring in Social Media. IJCAI 2017 📄

[13] **Lizi Liao**, Qirong Ho, Jing Jiang, Ee-Peng Lim. SLR: a Scalable Latent Role Model for Attribute Completion and Tie Prediction in Social Networks. ICDE 2016 📄

[14] **Lizi Liao**, Jing Jiang, Ying Ding, Heyan Huang, Ee-Peng Lim. Lifetime Lexical Variation in Social Media. AAAI 2014 📄