

Trung-Hoang Le

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ABOUT ME

Xin chào! I am a Research Fellow at Air Traffic Management Research Institute, Nanyang Technological University (NTU). Before join NTU, I was a Research Scientist at Preferred.AI. I completed my PhD at SMU School of Computing and Information Systems, supervised by Prof. Hady W. Lauw. My thesis is on Recommendation Explanation, providing rationale for given recommendations. Previously, I was a Software Engineer at KMS Technology. Earlier, I completed my bachelor degree at VNU-HCM University of Science, during which I had a stint as Research Assistant at VNU-HCM John von Neumann Institute. I am grateful of the following supportive scholarships that helped me afford my study: SMU Full Scholarships, SMU Presidential Doctoral Fellowship, 2020 SDSC Dissertation Research Fellowship. My first paper won a Distinguished Paper Award at IJCAI'20.

EDUCATION

- **SMU School of Computing and Information Systems** Singapore
PhD in Computer Science Jan 2018 – Dec 2022
- **VNU-HCM University of Science** Ho Chi Minh City, Viet Nam
B.S., Advanced Program in Computer Science Oct 2011 – Nov 2015

AWARDS

- **Dean's List Award - SMU SCIS (2021)** in recognition of significant research achievements
- **SMU Presidential Doctoral Fellowship in AY2020/2021 and AY2021/2022**
- **SDSC Dissertation Research Fellowship 2020**
- **Distinguished Paper Award at IJCAI'20** for paper "Synthesizing Aspect-Driven Recommendation Explanations from Reviews"
- **SMU Full Scholarship (4 years), PhD in Computer Science**

RESEARCH TOPICS

Web mining, recommender systems, trustworthy artificial intelligence, and air traffic management.

PUBLICATION

- **Compositions of Variant Experts for Integrating Short-Term and Long-Term Preferences.** Jaime Hieu Do, Trung-Hoang Le, Hady W. Lauw. *ACM Transactions of Recommender Systems (TORS)*. (**Revise and Resubmit**)
- **Selecting Comparative Sets of Reviews Across Multiple Items.** Trung-Hoang Le and Hady W. Lauw. *International Conference on Extending Database Technology (EDBT'25)*, Mar 2025.
- **Learning to Rank Aspects and Opinions for Comparative Explanations.** Trung-Hoang Le and Hady W. Lauw. *Machine Learning*, vol. 114, no. 17, Jan 2025. Presented at ACML 2024.
- **Question-Attentive Review-Level for Neural Rating Regression.** Trung-Hoang Le and Hady W. Lauw. *ACM Transactions on Intelligent Systems and Technology (TIST)*, vol. 15, no. 6, pp. 132:1 - 132:25, Dec 2024.
- **Hypergraphs with Attention on Reviews for Explainable Recommendation.** Theis E. Jendal, Trung-Hoang Le, Hady W. Lauw, Matteo Lissandrini, Peter Dolog and Katja Hose. *European Conference on Information Retrieval (ECIR'24)*, Mar 2024.
- **Multi-Modal Recommender Systems: Towards Addressing Sparsity, Comparability, and Explainability.** Trung-Hoang Le, Quoc-Tuan Truong, Aghiles Salah, and Hady W. Lauw. *Tutorial at ACM Web Conference (TheWebConf'23 or WWW'23)*, Apr 2023.
- **Question-Attentive Review-Level Recommendation Explanation.** Trung-Hoang Le and Hady W. Lauw. *2022 IEEE international conference on Big Data (Big Data)*, Dec 2022.
- **Explainable Recommendation with Comparative Constraints on Product Aspects.** Trung-Hoang Le and Hady W. Lauw. *ACM International Conference on Web Search and Data Mining (WSDM'21)*, Mar 2021.
- **Synthesizing Aspect-Driven Recommendation Explanations from Reviews.** Trung-Hoang Le and Hady W. Lauw. *International Joint Conference on Artificial Intelligence (IJCAI'20)*, Jan 2021. **Distinguished Paper Award**

SERVICE

- **Reviewer:** TheWebConf'24, KDD'24, KDD'25, TheWebConf'25, ACML'25, DSAA'25

EXPERIENCE

- **Air Traffic Management Research Institute at NTU — Research Fellow** Singapore
Technical Lead for the AI-Assisted Regional ATFM Project Sep 2024 – Present
- **Preferred.AI lab at SMU SCIS — Research Scientist** Singapore
Trustworthy Recommender Systems Mar 2023 – Aug 2024
- **KMS Technology — Software Engineer** Ho Chi Minh City, Viet Nam
Maintaining a Master Data Management System for a US-based client Feb 2016 – Nov 2017
- **John von Neumann Institute — Research Assistant** Ho Chi Minh City, Viet Nam
Project: predict traffic congestion status in Ho Chi Minh City. Jun 2014 – Aug 2014
Collecting GPS data from volunteers and crawling traffic data from a governmental website (<https://vovgiaothong.vn>).

TEACHING

- **CM102 Critical Thinking (Fall 2024, Spring 2025) — Teaching Associate/Assistant**
Faculty of Information Technology, University of Science, VNU-HCM, Ho Chi Minh City, Viet Nam
- **COR-IS1702 Computational Thinking (Fall 2019, Spring 2022, Fall 2022) — Teaching Assistant**
SMU School of Computing and Information Systems, Singapore
- **CS608 Recommender Systems (Summer 2021, Summer 2022) — Teaching Assistant**
Master of IT in Business (MITB), SMU School of Computing and Information Systems, Singapore
- **CS201 Data Structures and Algorithms (Fall 2020) — Teaching Assistant**
SMU School of Computing and Information Systems, Singapore

PROJECTS

- **AI-Assisted Regional Air Traffic Flow Management — Technical Lead**
A next generation ATFM system for ASEAN region and beyond
- **Cornac – <https://cornac.preferred.ai> — Contributor**
An open-source library of recommendation algorithms, one of recommended evaluation frameworks at RecSys2023
- **Butler – <https://butler.preferred.ai> — Mentor**
An interactive chatbot that can provide recommendation and explanation.
- **Medigo – <https://www.medigo.xyz> — Developer**
A Medicine Ordering System in Vietnam.
I developed backend services to collect feedback from users and analysed results to get insights for future development.
- **4eaz – <https://4eaz.com> — Founder**
A web application manages small retail and service business.

OTHER ACTIVITIES

- **Karatedo:** A Karate Do enthusiast with 2nd Dan Black Belt Shotokan Karate