Trung-Hoang Le

Research Scientist@Preferred.AI | thle.2017@smu.edu.sg | lthoang.com

About Me

Xin chào! I am a Research Fellow at Air Traffic Management Research Institute, Nanyang Technologcial 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. My research interests include preference mining and recommender systems, recommendation explanations, and trustworthy artificial intelligence. 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 Asistant 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.

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 recorgnition of significant research achievements
- **SMU Presidential Doctoral Fellowship in AY2020/2021 and AY 2021/2022**
- **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 Interests

Web mining, preference learning and recommendation, recommendation explanation, trustworthy artificial intelligence

Publication

- **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.*
- **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:** WWW'24, KDD'24

Experience

- **Air Traffic Management Research Institute at NTU — Research Fellow** — Singapore
  Sep 2024 – Now

- **Preferred.AI lab at SMU SCIS — Research Scientist** — Singapore
  Mar 2023 – Aug 2023

- **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

- **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

- **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