

THE SOCIALIST REPUBLIC OF VIETNAM
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**INFORMATION ON NEW ACADEMIC AND THEORETICAL
CONTRIBUTIONS OF THE THESIS**

Thesis's Title: **An approach for academic advising using recommender system**

Major: **Computer Science**

Code: **9480101**

PhD Candidate: **Huynh Ly Thanh Nhan**

Course: **2015**

University: **Lac Hong University**

Science Instructor: **1. Assoc. Prof. Dr. Nguyen Thai Nghe**

2. Assoc. Prof. Dr. Le Huy Thap

The contributions of the thesis on science and practice include the following:

Scientifically, The thesis has proposed a new approach to predicting student learning outcomes by proposing a method to integrate data relationships into the prediction algorithm to improve accuracy. In addition, the thesis also proposes a model to integrate deep learning architecture into matrix factorization as well as biased matrix factorization algorithms to improve efficiency in the problem of predicting student learning outcomes.

The research works in the thesis include 02 papers published in the proceedings of international conferences (IEEE, Scopus indexed) and 01 paper published in the proceedings of international conferences (Springer, Scopus indexed); 01 paper published in the international journal (Scopus indexed 2020) and 01 paper published in the international journal (EAI, DBLP indexed).

Practically, the thesis has proposed architecture and model to recommend the appropriate courses for students in the recommender system approach and built a practical application to help students establish appropriate learning plans thanks to suggestions for choosing courses with the best predictive results.

Dong Nai, January, 2024

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