

# THAI BINH NGUYEN

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## EDUCATION

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<b>Ph.D., Informatics</b> SOKENDAI (The Graduate University for Advanced Studies) <i>Dissertation:</i> Embedding Models for Recommender Systems on Sparse Data.	Apr 2016 - Mar 2019 Japan
<b>M.Sc., Computer Science</b> Japan Advanced Institute of Science and Technology <i>Thesis:</i> Matching Complex Documents: An Application to the CISCO Network Error Database.	Apr 2006 - Mar 2008 Japan
<b>B.A., Computer Science</b> Hanoi University of Science and Technology <i>Thesis:</i> Feature Extraction for the Fingerprint Recognition. <i>GPA:</i> 8.54/10.	Sep 1998 - Jun 2003 Vietnam

## HONORS AND AWARDS

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Excellent student award from the National Institute of Informatics (NII), Japan	2018
Full scholarship by Japanese government for Ph.D student	2016-2018
Full scholarship by Panasonic corporation for Master student	2006-2008
Several prizes in Mathematical Olympiads for secondary and high school students	before 1998

## RESEARCH EXPERIENCE

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<b>Ph.D student</b> at Department of Informatics, National Institute of Informatics, Japan. Advisor: Prof. Atsuhiko Takasu - My work focused on the intersection between Machine Learning, Natural Language Processing and Recommender Systems. I proposed some representation learning models for users and products from e-commerce transaction logs and textual data for product recommendation and product search.	2016 - 2019
<b>Research Intern</b> at Department of Informatics, National Institute of Informatics, Japan. Advisor: Prof. Atsuhiko Takasu - Developed a Bayesian-based model on location-based data for venue recommendations.	2015 - 2016
<b>Master student</b> at Japan Advanced Institute of Science and Technology, Japan. Advisor: Prof. Ho Tu Bao - Developed algorithms for multi-class classification of short texts.	2006 - 2008

## PRESENTATION AND TALK

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- Learning Representations from Product Titles for Modeling Shopping Transactions (**Poster**). At *RecNLP 2019 Workshop*, Honolulu, Hawaii, United States, 2019.
- NPE: Neural Personalized Embedding for Collaborative Filtering (**Oral+Poster**). At *IJCAI-ECAL-2018*, Stockholm, Sweden, 2018.
- A Probabilistic Model for the Cold-Start Problem in Rating Prediction using Click Data (**Oral**). At *ICONIP 2017*, GuangZhou, China, 2017.
- A Hierarchical Bayesian Factorization Model for Implicit and Explicit Feedback Data (**Oral**). At *ADMA 2017*, Singapore, 2017.
- Collaborative Item Embedding Model for Implicit Feedback Data (**Oral**). At *ICWE-2017*, Rome, Italy, 2017.

## PUBLICATIONS

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1. **ThaiBinh Nguyen**, Atsuhiko Takasu (2019). Learning Representations from Product Titles for Modeling Shopping Transactions. In *AAAI-19 Workshop on Recommender Systems and Natural Language Processing (RecNLP)*, Honolulu, Hawaii, United States.
2. **ThaiBinh Nguyen**, Atsuhiko Takasu (2018). NPE: Neural Personalized Embedding for Collaborative Filtering. In *Proceedings of the 27th International Joint Conference on Artificial Intelligence and the 23rd European Conference on Artificial Intelligence (IJCAI-ECAI 2018)*, Stockholm, Sweden.
3. **ThaiBinh Nguyen**, Atsuhiko Takasu (2017). A Probabilistic Model for the Cold-Start Problem in Rating Prediction using Click Data. In *Proceedings of The 24th International Conference on Neural Information Processing (ICONIP)*, Guangzhou, China.
4. **ThaiBinh Nguyen**, Atsuhiko Takasu (2017). A Hierarchical Bayesian Factorization Model for Implicit and Explicit Feedback Data. In *Proceedings of The 13th International Conference on Advanced Data Mining and Applications (ADMA)*, Singapore.
5. **ThaiBinh Nguyen**, Kenro Aihara, Atsuhiko Takasu (2017). Collaborative Item Embedding Model for Implicit Feedback Data. In *Proceedings of The 17th International Conference on Web Engineering (ICWE)*, Rome, Italy.
6. **Binh Nguyen**, Kenro Aihara, Atsuhiko Takasu (2015). City recommender system based on a latent topic model. In *IEICE Technical Report*, vol. 115, no. 381, AI2015-42, pp. 95-99, Okinawa, Japan.
7. **Nguyen, T.B.**, Ho, T.B., Pham, C., Kawasaki, S. (2007). Matching Complex Documents Using Tolerance Rough Set Model. In *Proceedings of The 8th International Symposium on Knowledge and Systems Sciences (KSS07)*, pp.156-162, Ishikawa, Japan.

## WORK EXPERIENCE

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- Data Scientist/AI Engineer** at Rakuten Inc., Japan Apr 2019 - present  
- Build machine learning models on GPS data for the intelligent logistics project.  
- Build machine learning models for predicting the Time Arriving of the drivers (ETA prediction).
- Lecturer** at Hanoi University of Science and Technology, Vietnam 2008 - 2015  
- Taught Data Structures and Algorithms (classes of 40-50 students).  
- Taught Mathematical Foundation for Informatics (classes of 40-50 students).

## TECHNICAL SKILLS

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- Proficient programmer in Python/Java/C++.
- 4+ years experience in Unix environment.
- 3+ years experience in machine learning/deep learning research.
- Practical experience with Pytorch, Tensorflow and Scikit-learn.

## PROFESSIONAL ACTIVITIES

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**Conference reviewer:** ICDM 2019, IJCAI 2019, RecSys 2019, PAKDD 2018.

## REFERENCES

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1. Dr. Atsuhiko Takasu (Professor)  
National Institute of Informatics, Japan.  
Email: takasu@nii.ac.jp
2. Dr. Kenro Aihara (Associate Professor)  
National Institute of Informatics, Japan.  
Email: kenro.aihara@nii.ac.jp