An La

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Education

2021 - present Ms/PhD (Computer Science) at **University of Massachusetts Amherst** (GPA: 3.76/4.0)
Advisor: Dr. Hung Le
Selective taken courses: Algorithms with Predictions, Randomized Algorithms, Probabilistic Graphical Model, Distributed and Operating Systems.

2013 - 2017 Bachelor's Degree at **Honors Program, VNU-HCMUS, Vietnam** (GPA: 3.57/4.0)
Information Technology, Graduated with distinction.

Publications

La, A., & Le, H. (2024, August). *Dynamic Locality Sensitive Orderings in Doubling Metrics.* https://arxiv.org/abs/2408.14617.

La, A., & Le, H. (2024, August). *New weighted additive spanners.* https://arxiv.org/abs/2408.14638.

La, A., Vo, P., & Vu, T. (2019, July). *Adaptive Collaborative Filtering for Recommender System.* In International Conference on Conceptual Structures (pp. 117-130). Springer, Cham. https://doi.org/10.1007/978-3-030-23182-8_9

Working Experience

2021 - now: **Research/Teaching Assistant at Theory CS Group/UMass Amherst**

Main research: Data structures for Computational Geometry (Spanners, Locality Sensitive Orderings).
Side projects: Learned Index Structures, Online TSP with Machine Learning advice.

Teaching Assistant: Algorithms for Data Science, Advanced Algorithms

2020 - 2021: **Data Scientist at PrimeData.AI, Vietnam** github/anla11/analytic_marketing

Design an automatic framework for Segment Analytics, which enables many marketing applications, including Business Identity and customer-centric features (Behavioural Similarity Search, Customer Journey Tracking, and Customer Engagement Campaign). The main technical approach included Bayesian Machine Learning and Probabilistic Programming.

2017 - 2019: **Data Scientist at FPT Telecom, FPT Group, Vietnam** github/anla11/adaptive_cf_recsys

Design and deploy a Graph-based model dealing with multiple evaluation metrics for the recommender system of fptplay.vn. The model increased 6% on precision and remained close to the best of previous methods on diversity, coverage and congestion. The balance between these metrics is tunable by parameters.

Skills

Theoretical skills	Data Structure Design, Algorithmic Analysis, Statistics and Probability.
Programming skills	Machine Learning (Tensor Flow, PyTorch, Scikit-Learn), Data Analysis and Visualization (Numpy, Pandas, Seaborn), Image Processing (OpenCV). Efficient in C/C++, Python

Selective Awards

Dec. 2016 National Vietnam award for Outstanding Female Students in Science and Technology
Aug. 2016 Awards from Facebook Hackathon Vietnam 2016
***1st prize* of Most Innovative Product**
***2nd prize* of Best Product in Facebook Marketing Category**
2014 *2nd prize* in ACM-ICPC Vietnam National 1st Round
2013 *3rd prize* in Informatics at the Vietnam National Excellent Student Exam