NGUYEN NGOC KHANH

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EDUCATION

BEng Nanyang Technological University, Computer Science May 2021
- Elective Tracks: High-Performance Computing, Artificial Intelligence
- Highest Distinction: Advanced Topics in Algorithms, Compiler Techniques

SCHOLARSHIPS AND AWARDS

Silver Medal in International Physics Olympiad 2015
Rank #51 (262 contestants)
Rank #4 of the Vietnamese team.

Gold Medal in Asian Physics Olympiad 2015
Best theoretical score of the Vietnamese team.
Rank #2 of the Vietnamese team.

Bronze Medal in Asian Physics Olympiad 2014
Rank #6 of the Vietnamese team.

RESEARCH EXPERIENCE

Data Science Intern, Shopee Private Limited, Singapore Apr 2021 to Present
Anti-Fraud Team, Data Science Department
Reporting Manager: Dr Huang Dong
- Reviewed Literature in neural-based techniques for Named-Entity Recognition and Word Segmentation.
- Implemented LSTM CRF model for NER task on address data
- Conduct experiment on address data and surpassed the baseline model (CRF) in f1 score performance on test data (0.92 to 0.98).

Research Assistant, Nanyang Technological University, Singapore Dec 2020 to Mar 2021
Singtel Cognitive and Artificial Intelligence Lab
Multi-Agent Path Finding
Advisor: Assoc Prof Tang Xueyan
- Reviewed Literature in Multi-Agent Path Finding (MAPF) and Multi-Travelling Salesman Problem (MTSP).
- Designed and Proved a reduction from the real-world instance to a multi-objective MTSP (mMTSP) instance
- Designed and Implemented a relaxed optimization algorithm for MTSP inspired by Spectral Clustering.
- Improved the solution by designing and implementing a new local search method for multi-objective optimization.
- Designed and implemented a conflict-based search algorithm to extract mMSTP solution for real-world requirements.
- Prepared specification documents for the work.

Final Year Project, Nanyang Technological University, Singapore Feb 2020 to Oct 2020
Cluster Analysis on Dynamic Graphs
Supervisor: Asst Prof Ke Yipping, Kelly

- Reviewed Literature in Graph Partitioning, Graph Embedding and Spectral Graph Neural Network.
- Extended and Analysed Gibbs sampling algorithm on Distance-dependent Chinese Restaurant Process (ddCRP) for Graph Clustering Problem
- Conducted intensive experiment for benchmark the performance on power-law cluster size synthesis graphs and real dynamic graphs.
- Surpassed the baseline method of 14.1% in modularity for power-law cluster size synthesis graphs.
- Prepared specification documents for the work (thesis).

LANGUAGES

English: Advanced language

Vietnamese: Native language

COMPUTER SKILLS

Programming: Python, Go, C++ (Intermediate), MATLAB (Beginner)

Applications: CLI Applications, JetBrains IDEs, Visual Studio Code.

Platforms: Linux/Unix, HDFS Spark.

OTHER

Interests/Hobbies: Code, Write, Play (multi-player competitive video games).
Citizenship: Vietnamese