

# NGUYEN NGOC KHANH

Phone number: +65 9778 7635  
[nguyenngockhanh.pbc@gmail.com](mailto:nguyenngockhanh.pbc@gmail.com)

Singapore  
<https://khanhyyy.github.io>

## EDUCATION

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**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

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List relevant awards, scholarships, grants and academic distinctions in reverse chronological order. Include a short description if necessary.

**Title of award** 200X  
Brief description

**Title of Fellowship** 200X  
Brief description

**Title of grant** 200X  
Brief description

**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

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**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).

## TEACHING EXPERIENCE

**Name of University**, Location May 200X to Aug 200X

**Associate Professor**, Department

- Taught Name of course, an undergraduate course averaging 120 students per semester, covering the following topics: topic, topic, topic, topic
- Developed tests, exams and homework
- Revised the syllabus to meet accreditation standards
- Coordinated grading and labs with a team of four teaching assistants

### Doctoral students advised

Name, "Dissertation title", Date graduated

Name, "Dissertation title", Date graduated

Name, "Dissertation title", Date graduated

### Masters students advised

Name, "Dissertation title", Date graduated

Name, "Dissertation title", Date graduated

Name, "Dissertation title", Date graduated

**Name of University**, Location

May 200X to Aug 200X

**Teaching assistant**, Department

- Highlight important projects, duties, skills and responsibilities following a consistent grammatical style

## PUBLICATIONS

List your publications in reverse chronological order. Use an acceptable reference format commonly used in your field. Group your publications into different categories if you have a sufficient number to do so.

### ***Books***

Surname, F.M., Book title, Location: Publisher, 2008.

### ***Journal publications***

Surname, F.M., Surname, F.M. and Surname, F.M., “Article title”, Journal name, vol. 1, no. 3, 2008, pp. 503-509.

Surname, F.M., Surname, F.M. and Surname, F.M., “Article title”, Journal name, vol. 1, no. 3, 2008, pp. 503-509.

### ***Journal papers accepted***

Surname, F.M., Surname, F.M. and Surname, F.M., “Article Title”, To be published in: Journal name.

Surname, F.M., Surname, F.M. and Surname, F.M., “Article Title”, To be published in: Journal name.

### ***Journal papers in Review***

Surname, F.M., Surname, F.M. and Surname, F.M., “Article Title”, Submitted to: Name of journal.

Surname, F.M., Surname, F.M. and Surname, F.M., “Article Title”, Submitted to: Name of journal.

### ***Conference papers***

(Peer-reviewed)

Surname, F.M. and Surname, F.M., “Article Title”, Proceedings of Conference name, Nov. 17-18 2008, PAPERID-000000, pp. 503-509.

Surname, F.M. and Surname, F.M., “Article Title”, Proceedings of Conference name, Nov. 17-18 2008, PAPERID-000000, pp. 503-509.

(Abstract-reviewed)

Surname, F.M. and Surname, F.M., “Article Title”, Proceedings of Conference name, Nov. 17-18 2008, PAPERID-000000, pp. 503-509.

Surname, F.M. and Surname, F.M., “Article Title”, Proceedings of Conference name, Nov. 17-18 2008, PAPERID-000000, pp. 503-509.

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Surname, F.M. and Surname, F.M., “Article Title”, Proceedings of Conference name, Nov. 17-18 2008, PAPERID-000000, pp. 503-509.

## **PATENTS**

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InventorSurname, F.M., InventorSurname, F.M., “Title of Invention”, Unites States Patent, No. 0000000.

InventorSurname, F.M., InventorSurname, F.M., “Title of Invention”, Unites States Patent, No. 0000000.

#### **PRESENTATIONS AND INVITED LECTURES**

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**Paper presentation**, “Title of Paper”, Name of conference, Date.

**Keynote address**, “Title of presentation”, Name of conference, Date.

**Workshop**, “Title of presentation”, Name of workshop, Date.

#### **PROFESSIONAL TRAINING**

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**Seminar or Workshop**

Name of Institution, Location, Date

Description: Include a brief description, if necessary.

**ABC certification**, Name of organisation], Date

Description: Include a brief description, if necessary.

**Company/Organisation**, [Position], [Department], Dates

- Skill/Accomplishment/Award/Certification
- Skill/Accomplishment/Award/Certification

#### **PROFESSIONAL AFFILIATIONS**

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Name of organisation, 200X-present

Description of role or responsibilities, if applicable.

Name of organisation, 200X-present

Description of role or responsibilities, if applicable.

#### **PROFESSIONAL SERVICE**

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**Conference Co-organiser**

Name of conference, Year

**Peer-reviewed articles for:**

- Name of journal
- Name of journal

#### **COMMUNITY SERVICE**

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**Organisation**

[Title/Position/Duty], [Location], Dates

**Organisation**

[Title/Position/Duty], [Location], Dates

## **LANGUAGES**

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**English:** Advanced language

**Vietnamese:** Native language

## **COMPUTER SKILLS**

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

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

**Platforms:** Linux/Unix, HDFS Spark.

## **OTHER**

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

Citizenship: Vietnamese

## REFERENCES

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**Dr Albert Jones**, [Title]  
[Department name]  
[University name]  
[Postal address]  
Phone: [phone number]  
Email: [email address]

**Dr Anne Smith**, [Title]  
[Department name]  
[Company name]  
[Postal address]  
Phone: [phone number]  
Email: [email address]