Nguyen Ngoc Khanh

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| Phone number: +65 9778 7635  [khanh.nguyen.contact@gmail.com](mailto:khanh.nguyen.contact@gmail.com?subject=[Acad%20CV]) | Singapore  [https://khanhcsc.github.io](https://khanhcsc.github.io/) |

# 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

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

**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.

## Conference papers in review

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.

# Patents

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

**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

**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

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

**Conference Co-organiser**

Name of conference, Year

**Peer-reviewed articles for**:

* Name of journal
* Name of journal

# Community service

**Organisation**

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

**Organisation**

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

# Languages

**English**: Advanced language

**Vietnamese:** Native language

# Computer skills

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

# References

**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]