Thanh Tang NGUYEN

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<u>Applied Artificial Intelligence Institute</u> (A²I²)

75 Pigdons Rd, Highton VIC 3216, Australia

EDUCATION

• Deakin University, Geelong, Australia

(Expected) 2021

PhD candidate in Machine Learning and Statistics Advisor: Sunil Gupta & Svetha Venkatesh

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• Ulsan National Institute of Science and Technology (UNIST), South Korea

2018

M.S. in Computer Science & Engineering (GPA: 4.3/4.0, Top graduate)

Thesis: Parametric information bottleneck to optimize stochastic neural networks

Advisor: Jaesik Choi

• Da Nang University of Science and Technology, Vietnam

2015

B.Eng. in Electronic and Communication Engineering (Advanced Program, valedictorian)

• Da Nang Le Quy Don high school for gifted students, Vietnam High School Diploma in Mathematics.

2010

Research Interests

Machine Learning, Reinforcement Learning, Statistics, Information Bottleneck, Learning Theory, Optimization.

EXPERIENCE

• Researcher

Mar. 2018 - Dec. 2018

Ulsan National Institute of Science and Technology (South Korea), School of Computer Science & Engineering, Statistical Artificial Intelligent Lab (SAIL).

• Research & Teaching Assistant

Mar. 2016 - Mar. 2018

Ulsan National Institute of Science and Technology (South Korea), School of Computer Science & Engineering, Statistical Artificial Intelligent Lab (SAIL).

• Mobile Network Intern & Engineer

Jan. 2015 - Aug. 2015

Viettel Network Corporation (Vietnam).

• Teaching Assistant & Research Assistant

2011 - Jan. 2015 & Aug. 2015 - Mar. 2016

Da Nang University of Science and Technology (Vietnam), Center of Excellence, Electronic and Communication Engineering.

Publications

• TT Nguyen, S. Gupta, and S. Venkatesh.

Distributional Reinforcement Learning via Moment Matching.

Proceedings of the 35th AAAI Conference on Artificial Intelligence (AAAI), Vancouver, Canada, Feb. 2-9, 2021.

• TT Nguyen, S. Gupta, H. Ha, S. Rana, and S. Venkatesh.

Distributionally Robust Bayesian Quadrature Optimization.

Proceedings of the 23rd International Conference on Artificial Intelligence and Statistics (AISTATS), Palermo, Italy, 2020.

• TT Nguyen, and J. Choi.

Markov Information Bottleneck to Improve Information Flow in Stochastic Neural Networks.

Entropy, 21(10), 976, 2019.

• H. Ha, S. Rana, S. Gupta, <u>TT Nguyen</u>, H. Tran-The, and S. Venkatesh.

Bayesian Optimization with Unknown Search Space.

Proceedings of the Advances in Neural Information Processing Systems (**NeurIPS**) 32, Vancouver, BC, Canada, 8–14 December, 2019.

• TT Nguyen, and J. Choi.

Parametric Information Bottleneck to Optimize Stochastic Neural Networks.

Proceedings of the International Symposium on Perception, Action and Cognitive Systems (**PACS**), p. 23-30, Seoul, Korea, 2017. (Best Poster Award)

Preprints

TT Nguyen, S. Gupta, H. Tran-The, and S. Venkatesh.
 On Non-Asymptotic Bounds for Off-Policy Evaluation with Deep ReLU Networks.
 Under review. 2020.

PROFESSIONAL/COMMUNITY SERVING

- Invited reviewer/PC member: AISTATS (2021), AAAI (2021), ICLR (2021), NeurIPS (2020), IJCNN (2020).
- Mentoring: Machine Learning mentor program (with 2 mentees so far)

Selected Awards

- Machine Learning Summer School (MLSS) 2020 at the Max Planck Institute for Intelligent Systems, Tübingen, Germany (acceptance rate: 13.84%).
- Australian Research Council (ARC) and PRaDA Postgraduate Research Scholarship 2019-2023;
- Best Poster Award, the International Symposium on Perception, Action and Cognitive Systems, 2017;
- Ulsan National Institute of Science and Technology Postgraduate Scholarship, 2016-2018;
- Valedictorian and the sole First-Class Graduate in the Electronic and Communication Engineering Program at the Center of Excellence (an advanced engineering program), Da Nang University of Science and Technology, 2015;
- Scholarships for Outstanding Academic Excellence from Da Nang University of Science and Technology in 2010 2015;
- JENESYS 2.0 Exchange student by Japan International Cooperation Center 2015;
- Sunflower Mission Engineering & Technology Scholarship by eSilicon and Texas Instrument, 2014;
- Third and Second Prize in Mathematics Competition of Da Nang University in 2012 and 2013 resp.;
- Takemoto Denki scholarship in 2012; Lawrence S.Ting scholarship per academic year from 2013 to 2015; Nguyen Thai-Binh Scholarship in 2013; Thanh-Nhan Scholarship in 2013;
- First Prize in the National Competition of Solving Mathematical Problems by the Journal of Mathematics and Youth, 2010:
- Silver Medal in Southern Vietnam Mathematics Olympiad, 2008;
- First Prizes in Da Nang Mathematics Competition for high school students in 2008, 2009, and 2010.

SKILLS

Programming: python, MATLAB, C++; **Deep learning framework**: Tensorflow, Pytorch; **Parallel computing**: OpenMP, MPI, CUDA, pthreads.

LANGUAGES

Vietnamese : Native

English : Proficient (TOEFL iBT score of 96)

REFERENCES

- Alfred Deakin Prof. Svetha Venkatesh Deakin University Applied Artificial Intelligence Institute svetha.venkatesh@deakin.edu.au
- Assoc. Prof. Sunil Gupta
 Deakin University
 Applied Artificial Intelligence Institute
 sunil.gupta@deakin.edu.au
- Assoc. Prof. Jaesik Choi
 Korea Advanced Institute of Science and Technology
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 School of Artificial Intelligence
 Statistical Artificial Intelligent Lab (SAIL)
 jaesik@kaist.ac.kr

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