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 PhD candidate in Machine Learning and Statistics (expected) 2021

- Thesis: On Practical Considerations of (Deep) Reinforcement Learning: Theory and Algorithms
- Advisors: Sunil Gupta & Svetha Venkatesh
- Ulsan National Institute of Science and Technology (UNIST), South Korea M.S. in Computer Science & Engineering (GPA: 4.3/4.0, Top-1 graduate)

2018

- Thesis: Parametric information bottleneck to optimize stochastic neural networks
- Advisor: Jaesik Choi
- \bullet Da Nang University of Science and Technology, ${\tt Vietnam}$

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, Computational Information Geometry, Deep Learning.

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. <u>Bayesian Optimization with Unknown Search Space</u>. 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 Finite-Sample Analysis of Batch Reinforcement Learning with Deep ReLU Networks. Under review. 2021.

Professional/Community Serving

- PC member: AAAI (2021);
- Invited reviewer: ICML (2021), AISTATS (2021), ICLR (2021), NeurIPS (2020), IJCNN (2020);
- Technical consultant: EM&AI Joint-Stock Company;
- Mentoring: University of Toronto (Canada), Ho Chi Minh University of Technology (Vietnam), Sharif University of Technology (Iran).

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, Tensorflow, MATLAB, Pytorch, C++;
- Languages: Vietnamese (native), English (proficient, TOEFL iBT 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 (KAIST) School of Artificial Intelligence Statistical Artificial Intelligent Lab (SAIL) jaesik@kaist.ac.kr

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