

Thanh Nguyen-Tang

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Deakin University
[Applied Artificial Intelligence Institute \(A²I²\)](#)
75 Pigdons Rd, Highton VIC 3216, Australia

EDUCATION

- **Deakin University**, Geelong, Australia (expected) 2021
PhD candidate in Machine Learning and Statistics
 - Thesis: On Practical Reinforcement Learning: Provable Robustness, Scalability and Statistical Efficiency
- **Ulsan National Institute of Science and Technology (UNIST)**, South Korea 2018
M.S. in Computer Science & Engineering (GPA: 4.3/4.0, Top-1 graduate)
 - Thesis: Parametric Information Bottleneck to Optimize Stochastic Neural Networks
- **Da Nang University of Science and Technology**, Vietnam 2015
B.Eng. in Electronic and Communication Engineering (advanced program, valedictorian)

EXPERIENCE

- **PhD Researcher** Jan. 2019 - present
The Applied Artificial Intelligence Institute, Deakin University, Australia;
- **Researcher** Mar. 2018 - Dec. 2018
Statistical Artificial Intelligent Lab (SAIL), School of Computer Science & Engineering, Ulsan National Institute of Science and Technology (South Korea);
- **Research & Teaching Assistant** Mar. 2016 - Mar. 2018
Statistical Artificial Intelligent Lab (SAIL), School of Computer Science & Engineering, Ulsan National Institute of Science and Technology (South Korea);

RESEARCH INTERESTS

Machine Learning, Reinforcement Learning, Statistics, Representation Learning, Generalization Beyond i.i.d. Settings.

PUBLICATIONS

- T. Nguyen-Tang, 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.
- T. Nguyen-Tang, 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.
- T. Nguyen-Tang, 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, T. Nguyen-Tang, 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.
- T. Nguyen-Tang, 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

- H. Tran-The, S. Gupta, T. Nguyen-Tang, S. Rana, and S. Venkatesh. [Combining Online Learning and Offline Learning for Contextual Bandits with Deficient Support](#). Under review, 2021.
- T. Nguyen-Tang, S. Gupta, H. Tran-The, and S. Venkatesh. [Sample Complexity of Offline Reinforcement Learning with Deep ReLU Networks](#). Under review. 2021.

POSTER PRESENTATION/TALKS

- Jul. 7-15, 2021: *Sample Complexity of Offline Reinforcement Learning with Deep ReLU Networks* at EEML 2021, Budapest, Hungary.
- Apr. 25, 2021: *On Finite-Sample Analysis of Batch Reinforcement Learning with Deep ReLU Networks* at Viet.Operator.Theorists, Troy University, U.S.
- Feb. 5, 2021: *Distributional Reinforcement Learning via Moment Matching* at AAAI 2021, Vancouver Canada.
- Aug. 26-28, 2020: *Distributionally Robust Bayesian Quadrature Optimization* at AISTATS 2020, Palermo, Italy.
- Jun. 28-Jul. 10, 2020: *Moment Matching Reinforcement Learning* at MLSS 2020, Max Planck Institute for Intelligent Systems, Tübingen, Germany.
- Nov. 2-7, 2017: *Parametric Information Bottleneck to Optimize Stochastic Neural Networks* at PACS 2017, SNU, Seoul, Korea (Best Poster Award).

SELECTED AWARDS

- An outstanding reviewer for ICLR'21;
- 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;
- First Prize in the Nationwide Annual Mathematical Competition by the Journal of Mathematics and Youth, 2010;
- Silver Medal in Southern Vietnam Mathematics Olympiad, 2008;

SERVICE

- Invited reviewer: ICML (2021), AAAI (2021), AISTATS (2021), ICLR (2021 - **outstanding reviewer**, 2022), NeurIPS (2020, 2021), IJCNN (2020);
- Mentoring and Consulting: University of Toronto (Canada), Ho Chi Minh University of Technology (Vietnam), Sharif University of Technology (Iran), EM&AI Joint-Stock Company.

MEETUPS

- The Deep Learning Theory Summer School at Princeton (acceptance rate: $180/500 = 36\%$).
- Eastern European Machine Learning Summer School (EEML) at Budapest Hungary, 2021 (accepted with a poster presentation).
- Machine Learning Summer School (MLSS) 2020 at the Max Planck Institute for Intelligent Systems, Tübingen, Germany (acceptance rate: 13.84%).

SKILLS

- Programming: Python, Tensorflow, MATLAB, Pytorch, C++;
- Languages: Vietnamese (native), English (proficient, TOEFL iBT of 96).

REFERENCES

Upon request.

(Updated: June 21, 2021)