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 Considerations of Reinforcement Learning: 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)

- **Da Nang Le Quy Don high school for gifted students**, Vietnam 2010
  High School Diploma in Mathematics.

RESEARCH INTERESTS

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

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

- 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. 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 - **outstanding reviewer**), 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

- An outstanding reviewer for ICLR'21;

- 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
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- 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

- Assoc. Prof. Tuan V. PHAM
  Da Nang University of Science and Technology
  Center of Excellence
  pvtuan@dut.udn.vn

- Major Tra-My V. NGUYEN
  Department of Mobile Network
  Technical Center II - Viettel Networks Corporation
  tramynv@viettel.com.vn

- Dr. Thai-Son Nguyen-Duy
  Department of Mathematics
  Da Nang University of Education
  nguyent63@gmail.com

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