

Viet Anh Nguyen

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Website: <http://www.vietanhnguyen.net>

CURRENT EMPLOYMENT

Chinese University of Hong Kong (Hong Kong) Dec 2022 –
Assistant Professor, Department of Systems Engineering and Engineering Management

PAST EMPLOYMENT

VinAI Research (Vietnam) April 2021 – July 2022
Research Scientist, Machine Learning and Deep Learning Group Lead

EDUCATION AND ACADEMIC EMPLOYMENT

Stanford University (United States) 2019 – 2021
Postdoctoral Researcher
Advisors: Professor Jose Blanchet, Professor Yinyu Ye

École Polytechnique Fédérale de Lausanne (Switzerland) 2013 – 2019
Doctor of Science in Risk Analytics and Optimization
Advisor: Professor Daniel Kuhn

Study Center Gerzensee (Switzerland) 2014 – 2015
Swiss Program for Beginning Doctoral Students in Economics

National University of Singapore (Singapore) 2011 – 2013
Master of Engineering in Industrial and Systems Engineering

École Centrale Paris (France) 2008 – 2013
Diplôme d'Ingénieur

National University of Singapore (Singapore) 2006 – 2011
Bachelor of Engineering in Industrial and Systems Engineering

SELECTED AWARDS

First place. George E. Nicholson Student Paper Competition 2018
• This competition is held each year by INFORMS to identify and honor outstanding papers in the field of operations research and the management sciences written by a student.

Best Teaching Assistant Award. École Polytechnique Fédérale de Lausanne 2018

JOURNAL PUBLICATIONS

M.-C. Yue, Y. Rychener, D. Kuhn, and **V. A. Nguyen**, “A geometric unification of distributionally robust covariance estimators: Shrinking the spectrum by inflating the ambiguity set,” *Operations Research*, 2026.

N. Nguyen, H. Nguyen, A. Li, H. Pham, **V. A. Nguyen**, and K. Doan, “Retrospective feature estimation for continual learning,” *Transactions on Machine Learning Research*, 2026.

N. Bui, D. Nguyen, C. Nguyen, M.-C. Yue, and **V. A. Nguyen**, “Coverage-validity-aware algorithmic recourse,” *Operations Research*, 2025.

V. A. Nguyen, F. Zhang, S. Wang, J. Blanchet, E. Delage, and Y. Ye, “Robustifying conditional portfolio decisions via optimal transport,” *Operations Research*, 2024.

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Y. Wang, **V. A. Nguyen**, and G. A. Hanasusanto, “Wasserstein robust classification with fairness constraints,” *Manufacturing & Service Operations Management*, 2024.

X. Zhang, J. Blanchet, Y. Marzouk, **V. A. Nguyen**, and S. Wang, “Distributionally robust Gaussian process regression and Bayesian inverse problems,” *Annals of Applied Probability*, 2024.

J. Blanchet, Y. Kang, J. L. Montiel Olea, **V. A. Nguyen**, and X. Zhang, “Dropout training is distributionally robust optimal,” *Journal of Machine Learning Research*, 2023.

V. A. Nguyen, S. Shafieezadeh-Abadeh, P. Mohajerin Esfahani, and D. Kuhn, “Bridging Bayesian and minimax mean square error estimation via Wasserstein distributionally robust optimization,” *Mathematics of Operations Research*, 2023.

V. A. Nguyen, D. Kuhn, and P. Mohajerin Esfahani, “Distributionally robust inverse covariance estimation: The Wasserstein shrinkage estimator,” *Operations Research*, vol. 70, no. 1, pp. 490 – 515, 2021.

- First place, George E. Nicholson Student Paper Competition, INFORMS 2018.

C. Ordoudis, **V. A. Nguyen**, D. Kuhn, and P. Pinson, “Energy and reserve dispatch with distributionally robust joint chance constraints,” *Operations Research Letters*, vol. 49, no. 3, pp. 291 – 299, 2021.

T. A. Weber, and **V. A. Nguyen**, “A linear-quadratic Gaussian approach to dynamic information acquisition,” *European Journal of Operational Research*, vol. 270, no. 1, pp. 260 – 281, 2018.

V. A. Nguyen, J. Jiang, K. Ng, and K. Teo, “Satisficing measure approach for vehicle routing problem with time windows under uncertainty,” *European Journal of Operational Research*, vol. 248, no. 2, pp. 404 – 414, 2016.

A. Kumar, **V. A. Nguyen**, and K. M. Teo, “Commuter cycling policy in Singapore: A farecard data analytics based approach,” *Annals of Operations Research*, vol. 236, pp. 57 – 73, 2016.

PUBLICATIONS AT MACHINE LEARNING CONFERENCES

T. Le, A. Nguyen, and **V. A. Nguyen**, “Provably data-driven multiple hyper-parameter tuning with structured loss function,” in *Proceedings of the 43rd International Conference on Machine Learning (ICML)*, 2026.

T. Le, A. Nguyen, and **V. A. Nguyen**, “Provably data-driven Lagrangian relaxation for mixed integer linear programming,” in *Proceedings of the 43rd International Conference on Machine Learning (ICML)*, 2026.

L. Tran, D. Zhu, A. Cheung, M-C. Yue, and **V. A. Nguyen**, “Exploring diverse generation paths via inference-time Stiefel activation steering,” in *International Conference on Learning Representations (ICLR)*, 2026.

H. Nguyen, B. Nguyen, W. Ma, Y. Zhao, R. She, and **V. A. Nguyen**, “Adaptive rollout allocation for online reinforcement learning with verifiable rewards,” in *International Conference on Learning Representations (ICLR)*, 2026.

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A. Nguyen and **V. A. Nguyen**, “Provable data-driven projection method for quadratic programming,” in *AAAI*, 2026.

L. Tran, D. Zhu, M-C. Yue, and **V. A. Nguyen**, “Test-time diverse reasoning by Riemannian activation steering,” in *AAAI*, 2026.

B. Nguyen, H. Nguyen, R. She, X. Fu, and **V. A. Nguyen**, “Mathematical reasoning planning for language models,” in *Advances in Neural Information Processing Systems (NeurIPS)*, 2025.

B. Nguyen, B. Nguyen, D. Nguyen, and **V. A. Nguyen**, “Distributional surgery for language model activations,” *EMNLP Findings*, 2025.

H. Nguyen, B. Nguyen, and **V. A. Nguyen**, “Structured pruning for diverse best-of-N reasoning optimization,” in the *Annual Meeting of the Association for Computational Linguistics (ACL)*, 2025.

N. Bui, H. Nguyen, S. Kumar, J. Theodore, W. Qiu, **V. A. Nguyen**, and R. Ying, “Mixture-of-personas language models for population simulation,” in the *Annual Meeting of the Association for Computational Linguistics (ACL)*, 2025.

H. Nguyen, B. Nguyen, B. Nguyen, and **V. A. Nguyen**, “Task-driven layerwise additive activation intervention,” in *Proceedings of the 2025 Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)*, 2025.

C. Jiang, B. Nguyen, A. So, and **V. A. Nguyen**, “Probe-free low-rank activation intervention,” in *Proceedings of the 2025 Conference of the North American Chapter of the Association for Computational Linguistics (NAACL)*, 2025.

B. Nguyen, B. Nguyen, H. Nguyen, and **V. A. Nguyen**, “Generative conditional distributions by neural (entropic) optimal transport,” in *Proceedings of the 41st International Conference on Machine Learning (ICML)*, 2024.

N. Bui, H. Nguyen, **V. A. Nguyen**, and Z. Ying, “Explaining graph neural networks via structure-aware interaction index,” in *Proceedings of the 41st International Conference on Machine Learning (ICML)*, 2024.

H. Nguyen, D. Nguyen, K. Doan, and **V. A. Nguyen**, “Cold-start recommendation by personalized embedding region elicitation,” in *Conference on Uncertainty in Artificial Intelligence (UAI)*, 2024.

B. Nguyen, B. Nguyen, and **V. A. Nguyen**, “Bellman optimal step-size straightening of flow-matching models,” in *International Conference on Learning Representations (ICLR)*, 2024.

B. Nguyen, and **V. A. Nguyen**, “Efficient failure pattern identification of predictive algorithms,” in *Conference on Uncertainty in Artificial Intelligence (UAI)*, 2023.

X. Hua, T. Nguyen, T. Le, J. Blanchet, and **V. A. Nguyen**, “Dynamic flows on curved space generated by labeled data,” in *International Joint Conference on Artificial Intelligence (IJCAI)*, 2023.

D. Nguyen, N. Bui, and **V. A. Nguyen**, “Distributionally robust recourse action,” in *International Conference on Learning Representations (ICLR)*, 2023.

- Honorable Mention, Undergraduate Operations Research Prize, INFORMS 2022.

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D. Nguyen, N. Bui, and **V. A. Nguyen**, “Feasible recourse plan via diverse interpolation,” in *International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2023.

J. Li, S. Lin, J. Blanchet, and **V. A. Nguyen**, “Tikhonov regularization is optimal transport robust under martingale constraints,” in *Advances in Neural Information Processing Systems (NeurIPS)*, 2022.

D. Nguyen, N. Bui, D. Nguyen, M.-C. Yue, and **V. A. Nguyen**, “Robust Bayesian recourse,” in *Conference on Uncertainty in Artificial Intelligence (UAI)*, 2022.

H. Vu, T. Tran, M.-C. Yue, and **V. A. Nguyen**, “Distributionally robust fair principal components via geodesic descents,” in *International Conference on Learning Representations (ICLR)*, 2022.

N. Bui, D. Nguyen, and **V. A. Nguyen**, “Counterfactual plans under distributional ambiguity,” in *International Conference on Learning Representations (ICLR)*, 2022.

T. Le, T. Nguyen, D. Phung, and **V. A. Nguyen**, “Sobolev transport: A scalable metric for probability measures with graph metrics,” in *International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2022.

X. Hua, H. Xu, J. Blanchet, and **V. A. Nguyen**, “Human imperceptible attacks and applications to improve fairness,” in *Winter Simulation Conference*, 2022.

N. Bui, L. Nguyen, **V. A. Nguyen**, and P. T. Do, “A deep reinforcement learning-based adaptive charging policy for wireless rechargeable sensor networks,” in *IEEE International Conference on Mobile Ad-Hoc and Smart Systems*, 2022.

T. Le, T. Nguyen, M. Yamada, J. Blanchet, and **V. A. Nguyen**, “Adversarial regression with doubly non-negative weighting matrices,” in *Advances in Neural Information Processing Systems (NeurIPS)*, 2021.

B. Taskesen, M.-C. Yue, J. Blanchet, D. Kuhn, and **V. A. Nguyen**, “Sequential domain adaptation by synthesizing distributional robust experts,” in *Proceedings of the 38th International Conference on Machine Learning (ICML)*, 2021.

- Oral presentation, top 3% of submissions.

N. Si, K. Murthy, J. Blanchet, and **V. A. Nguyen**, “Testing group fairness via optimal transport projections,” in *Proceedings of the 38th International Conference on Machine Learning (ICML)*, 2021.

R. Vreugdenhil, **V. A. Nguyen**, A. Eftekhari, and P. Mohajerin Esfahani, “Principal component hierarchy for sparse quadratic programs,” in *Proceedings of the 38th International Conference on Machine Learning (ICML)*, 2021.

B. Taskesen, J. Blanchet, D. Kuhn, and **V. A. Nguyen**, “A statistical test for probabilistic fairness,” in *ACM Conference on Fairness, Accountability, and Transparency (FAccT)*, 2021.

V. A. Nguyen, F. Zhang, J. Blanchet, E. Delage, and Y. Ye, “Distributionally robust local nonparametric conditional estimation,” in *Advances in Neural Information Processing Systems (NeurIPS)*, 2020.

V. A. Nguyen, X. Zhang, J. Blanchet, and A. Georgioui, “Distributionally robust parametric maximum likelihood estimation,” in *Advances in Neural Information Processing Systems (NeurIPS)*, 2020.

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V. A. Nguyen, N. Si, and J. Blanchet, “Robust Bayesian classification using an optimistic score ratio,” in *Proceedings of the 37th International Conference on Machine Learning (ICML)*, 2020.

V. A. Nguyen, S. Shafieezadeh-Abadeh, M.-C. Yue, D. Kuhn, and W. Wiesemann, “Optimistic distributionally robust optimization for nonparametric likelihood approximation,” in *Advances in Neural Information Processing Systems (NeurIPS)*, 2019.

V. A. Nguyen, S. Shafieezadeh-Abadeh, M.-C. Yue, D. Kuhn, and W. Wiesemann, “Calculating optimistic likelihoods using (geodesically) convex optimization,” in *Advances in Neural Information Processing Systems (NeurIPS)*, 2019.

S. Shafieezadeh-Abadeh, **V. A. Nguyen**, D. Kuhn, and P. Mohajerin Esfahani, “Wasserstein distributionally robust Kalman filtering,” in *Advances in Neural Information Processing Systems (NeurIPS)*, 2018.

- Spotlight presentation, top 5% of submissions.

TUTORIALS IN OPERATIONS RESEARCH

J. Blanchet, K. Murthy, and **V. A. Nguyen**, “Statistical analysis of Wasserstein distributional robust estimators,” *INFORMS TutORials in Operations Research*, pp. 227 – 254, 2021.

D. Kuhn, P. Mohajerin Esfahani, **V. A. Nguyen**, and S. Shafieezadeh-Abadeh, “Wasserstein distributionally robust optimization: Theory and applications in machine learning,” *INFORMS TutORials in Operations Research*, pp. 130–166, 2019.

PAPERS UNDER REVIEW

V. A. Nguyen, S. Shafieezadeh-Abadeh, D. Filipovic, and D. Kuhn, “Mean covariance robust risk measurement,” major revision at *Management Science*.

J. Blanchet, F. Hernandez, **V. A. Nguyen**, M. Pelger, and X. Zhang, “Bayesian imputation with optimal look-ahead-bias and variance tradeoff,” under review.

J. Blanchet, F. Hernandez, **V. A. Nguyen**, M. Pelger, and X. Zhang, “Time-series imputation with Wasserstein interpolation for optimal look-ahead-bias and variance tradeoff,” under review.

B. Taskesen, **V. A. Nguyen**, D. Kuhn, and J. Blanchet, “A distributionally robust approach to fair classification,” under review.

GRANTS

Research Grant Council (RGC)

- General Research Fund (14208625): 830k HKD (~106,000 USD)
- Early Career Scheme (24210924): 527k HKD (~68,000 USD)

CUHK’s Improvement on Competitiveness in Hiring New Faculties Funding Scheme

- Amount: 1.4M HKD (~180,000 USD)

CUHK’s Direct Grant

- Amount: 150k HKD (~20,000 USD)

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TEACHING EXPERIENCE

Chinese University of Hong Kong (Hong Kong SAR) 2023

- SEEM3650 Fundamentals of Data and Decision Analytics

Stanford University (United States) 2020

- Co-lecturer for Optimal Transport: Theory and Applications (PhD's).

École Polytechnique Fédérale de Lausanne (Switzerland) 2015 – 2019

- Co-lecturer for Applied Probability and Stochastic Processes (master's) and Optimal Decision Analysis (master's).
- Teaching assistant for Network Analytics (master's), Microeconomics (master's), Informations: Strategy and Economics (master's level), Financial Accounting (master's).
- Awarded the best teaching assistantship award in 2018.

National University of Singapore (Singapore) 2010 – 2012

- Tutor and grader for Operations Research 1 (undergraduate) and Probability Models with Applications (undergraduate).
- Nominated for the best teaching assistantship award, Faculty of Engineering (2011).

SUPERVISIONS

Hongzheng Yang, PhD student at CUHK 2025 – till date

Mengyu Li, PhD student at CUHK 2025 – till date

Yi Liu, M.Phil student at CUHK 2025 – till date

Xinyun Gao, MPhil student at CUHK 2025 – till date

Bao Nguyen, PhD student at CUHK 2024 – till date

Yue Lin, PhD student at CUHK 2024 – till date

Yilin Gu, PhD student at CUHK 2024 – till date

Dongxuan Zhu, PhD student at CUHK 2024 – till date

Zikun Lin, PhD student at CUHK 2023 – till date

Hieu Nguyen, PhD student at CUHK, former resident at VinAI 2022 – till date

Ngoc Bui, Research resident at VinAI. First position: CS PhD student at Yale Uni. 2021 – 2023

Duy Nguyen, Research resident at VinAI. First position: CS PhD student at UNC. 2021 – 2024

Hieu Vu, Research resident at VinAI. First position: CS PhD student at Uni. of Iowa 2021 – 2022

Sirui Lin, PhD student at Stanford University 2020 – till date

Xuhui Zhang, PhD student at Stanford University 2019 – till date

Bahar Taskesen, PhD student at EPFL 2019 – till date

Yves Rychener, Master's student at EPFL 2019

- Thesis title: Distributionally robust maximum likelihood estimation.

Andreas Bill, Master's student at EPFL 2016

- Thesis title: Distributionally robust optimization of solar energy planning for Switzerland 2050.

SELECTED SCHOLARSHIPS

Research Fellowship, National University of Singapore 2010 – 2012

Eiffel Excellence Scholarship. French Ministry of Education 2008 – 2010

- Prestigious merit-based scholarship awarded to outstanding international students.

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French Embassy Scholarship. French Embassy in Singapore	2008
• Awarded to top students from ASEAN countries to pursue higher education in France.	
ASEAN Undergraduate Scholarship. Singapore Ministry of Education	2006 – 2010
• Awarded to outstanding students to pursue undergraduate studies in Singapore.	
Dean's List. Faculty of Engineering, National University of Singapore	2007

REVIEWING ACTIVITIES

- Reviewer for academic journals in the area of operations research, optimization and control: Management Science (INFORMS), Operations Research (INFORMS), Mathematical Programming (Springer), Mathematics of Operations Research (INFORMS), Journal on Computing (INFORMS), European Journal of Operational Research (Elsevier), Automatica (Elsevier), Transactions on Automatic Control (IEEE), Transactions on Power Systems (IEEE), Transactions on Signal Processing (IEEE), Operations Research Letters (Elsevier), Transportation Research: Part E (Elsevier), Computers & Industrial Engineering (Elsevier), Journal of Optimization Theory and Applications (Springer), Expert Systems with Applications (Elsevier), Energy Systems (Springer), Computational Optimization and Applications (Springer)
- Reviewer for conferences:
IEEE Conference on Decision and Control 2017, American Control Conference 2019, SIAM Symposium on Discrete Algorithms 2019, NeurIPS 2020/2021/2022, ICLR 2021/2022/2023/2024, ICML 2021/2022/2023, AISTATS 2022/2023, FAccT 2022.
- Area Chair for conferences:
NeurIPS 2023/2024/2025, FAccT 2023/2024.

ADVANCED COURSES IN ECONOMICS

Financial Stability by Prof. Xavier Vives (Gerzensee, Switzerland)
Recent Advances in Theoretical Industrial Organization by Prof. Jean Tirole (Gerzensee, Switzerland)
Bayesian Dynamic Modelling and Forecasting by Prof. Mike West (Gerzensee, Switzerland)

ACADEMIC VISIT

GERAD - Group for Research in Decision Analysis (Canada)	December 2018
Delft University of Technology (the Netherlands)	February 2018
Technical University of Denmark (Denmark)	January 2018
Advanced Digital Sciences Center (Singapore)	October 2012

INVITED PRESENTATIONS

Princeton University (ORFE)	2022
Carnegie Mellon University (Tepper OR)	2022
Massachusetts Institute of Technology (Sloan)	2021
Cornell University (ORIE)	2021
University of Wisconsin-Madison (Engineering)	2021
Purdue University (Krannert)	2021
INFORMS Annual Meetings	2018, 2019
International Conference on Stochastic Programming	2019

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International Conference on Continuous Optimization	2019
International Symposium on Mathematical Programming	2018
Conference on Computational Management Science	2018
27th European Conference on Operational Research	2015
Modeling and Optimization: Theory and Applications	2011

LANGUAGES

English (Fluent), French (Fluent), German (Intermediate), Vietnamese (Native)