

Trang H. Tran

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(Updated January 4, 2025)

EDUCATION

- 2020 – 2024 **Ph.D.**, [Cornell University](#)
School of Operations Research and Information Engineering.
Major: Mathematical Programming.
Advisor: Prof. Katya Scheinberg, Co-advisor: Dr. Lam M. Nguyen.
- 2015 – 2019 **B.S.**, [Hanoi National University of Education](#)
Major: Mathematics and Education.

RESEARCH EXPERIENCE

- 02/2025 – [Postdoctoral Researcher](#)
Present [Lehigh University](#), Bethlehem, PA
Supervisor: Prof. Luis Nunes Vicente
- 05 – 08/2024 [Siegel PiTech PhD Impact Fellowship](#)
[ADAPT Community Network](#), New York City, NY
Supervisor: Ronak Parikh
- 05 – 08/2023 [AI Research Intern](#)
[IBM Research](#), Thomas J. Watson Research Center, Yorktown Heights, NY
Supervisors: Dr. Lam M. Nguyen, Dr. Kyongmin Yeo, Dr. Nam H. Nguyen
- 05 – 08/2022 [AI Research Intern](#)
[IBM Research](#), Thomas J. Watson Research Center, Yorktown Heights, NY
Supervisor: Dr. Lam M. Nguyen

PUBLICATIONS

- 2024 [Stochastic ISTA/FISTA Adaptive Step Search Algorithms for Convex Composite Optimization](#)
Lam M. Nguyen, Katya Scheinberg, **Trang H. Tran** (Alphabetical order)
[Journal of Optimization Theory and Applications](#)
- 2024 [Shuffling Gradient-Based Methods for Nonconvex-Concave Minimax Optimization](#)
Quoc Tran-Dinh, **Trang H. Tran**, Lam M. Nguyen
[Conference on Neural Information Processing Systems \(NeurIPS 2024\)](#) (25.8% acceptance rate)
- 2024 [Improving Time Series Encoding with Noise-Aware Self-Supervised Learning and an Efficient Encoder](#)
Anh Duy Nguyen, **Trang H. Tran**, Hieu H. Pham, Phi Le Nguyen, Lam M. Nguyen
[IEEE International Conference on Data Mining \(ICDM 2024\)](#) (19.5% acceptance rate)
- 2024 [Shuffling Momentum Gradient Algorithm for Convex Optimization.](#)
Trang H. Tran, Quoc Tran-Dinh, Lam M. Nguyen
[Vietnam Journal of Mathematics \(VJOM\)](#)
Special issue dedicated to Dr. Tamás Terlaky on the occasion of his 70th birthday, 2024
- 2023 [On the Convergence to a Global Solution of Shuffling-Type Gradient Algorithms](#)
Lam M. Nguyen*, **Trang H. Tran*** (*Equally contributed)
[Conference on Neural Information Processing Systems \(NeurIPS 2023\)](#) (26.1% acceptance rate)
- 2022 [Nesterov Accelerated Shuffling Gradient Method for Convex Optimization.](#)
Trang H. Tran, Katya Scheinberg, Lam M. Nguyen
[International Conference on Machine Learning \(ICML 2022\)](#) (21.9% acceptance rate)
- 2021 [SMG: A Shuffling Gradient-Based Method with Momentum](#)
Trang H. Tran, Lam M. Nguyen, Quoc Tran-Dinh
[International Conference on Machine Learning \(ICML 2021\)](#) (21.47% acceptance rate)

PEER-REVIEWED WORKSHOP PAPERS

- 2023 [Stochastic FISTA Step Search Algorithm for Convex Optimization](#)
Trang H. Tran, Lam M. Nguyen, Katya Scheinberg
Conference on Neural Information Processing Systems (**NeurIPS 2023**),
Workshop on Optimization for Machine Learning (**OPT 2023**)

PREPRINTS

- 2023 [A Univariate Pretrain-Finetune Approach for Time Series Using Supervised Contrastive Learning](#)
Trang H. Tran, Lam M. Nguyen, Kyongmin Yeo, Nam Nguyen, Roman Vaculin
Technical report, arXiv preprint, 2023 (*Under Review*)
- 2023 [An End-to-End Time Series Model for Simultaneous Imputation and Forecast](#)
Trang H. Tran, Lam M. Nguyen, Kyongmin Yeo, Nam Nguyen, Dzung Phan, Roman Vaculin, Jayant Kalagnanam
Technical report, arXiv preprint, 2023 (*Under Review*)
- 2022 [Finding Optimal Policy for Queueing Models: New Parameterization](#)
Trang H. Tran, Lam M. Nguyen, Katya Scheinberg
Technical report, arXiv preprint, 2022
- 2022 [New Perspective on the Global Convergence of Finite-Sum Optimization](#)
Lam M. Nguyen*, **Trang H. Tran***, Marten van Dijk (*Equally contributed)
Technical report, arXiv preprint, 2022 (*Under Review*)

PROFESSIONAL ACTIVITIES

- 02/2023 [Workshop Organizer](#)
When Machine Learning meets Dynamical Systems: Theory and Applications.
Lam M. Nguyen, **Trang H. Tran**, Wang Zhang, Subhro Das and Tsui-Wei Weng.
Workshop at the 37th Conference on Artificial Intelligence (AAAI 2023)
- 2020 – Present [Program Committee – Reviewer \(peer-reviewed conferences\)](#)
International Conference on Machine Learning (ICML 2020 - 2024)
Conference on Neural Information Processing Systems (NeurIPS 2021 - 2024)
International Conference on Learning Representations (ICLR 2021 - 2024)
Conference on Artificial Intelligence (AAAI 2022, 2025)
International Conference on Artificial Intelligence and Statistics (AISTATS 2021 - 2025)
Conference on Uncertainty in Artificial Intelligence (UAI 2022 - 2023)
Conference on Computer Vision and Pattern Recognition (CVPR 2023)
- 2021 – Present [Reviewer \(peer-reviewed journal\)](#)
Journal of Machine Learning Research (2022 – Present)
Journal of Optimization Theory and Applications (2022 – Present)
Machine Learning (2021 – Present)
Neural Networks (2022 – 2023)
IEEE Transactions on Neural Networks and Learning Systems (2022)
IEEE Transactions on Signal Processing (2021)
- 2022 – Present [Member](#)
Editorial Board, Machine Learning Journal
- 2021 – Present [Session Chair / Organizer](#)
INFORMS Annual Meeting 2023 – "First-Order Methods for Machine Learning"
INFORMS Annual Meeting 2022 – "Optimization for Machine Learning"
INFORMS Annual Meeting 2021 – "Recent Advances in Stochastic Gradient Algorithms"
- 2021 [Program Committee – Reviewer \(workshops\)](#)
Optimization for Machine Learning: Beyond Worst-case Complexity (OPT 2021 – NeurIPS 2021 Workshop)
New Frontiers in Federated Learning: Privacy, Fairness, Robustness, Personalization and Data Ownership (NFFL 2021 – NeurIPS 2021 Workshop)

PATENTS APPLICATIONS

- [3] [A Multivariate Time Series Model Which Simultaneously Learns The Spatial And Temporal Relation.](#)
Filed on January 5th, 2024.
Lam M. Nguyen, **Trang H. Tran.**
- [2] [Time Series Forecasting Using Multivariate Time Series Data With Missing Values.](#)
Filed on February 1st, 2023.
Lam M. Nguyen, **Trang H. Tran**, Kyongmin Yeo, Nam Nguyen, Dzung Phan, Roman Vaculin, Jayant Kalagnanam.
- [1] [Training A Neural Network Using an Accelerated Gradient with Shuffling.](#)
Filed on July 14th, 2022.
Lam M. Nguyen, **Trang H. Tran.**

HONORS & AWARDS

- 2024 [Cornell Tech PhD Impact Fellowship](#)
Siegel Family Endowment PiTech PhD Impact Fellowship, Summer 2024
- 2023 [NeurIPS 2023 Scholar Award](#)
Conference on Neural Information Processing Systems (NeurIPS 2023) (Travel Grant)
- 2022 [UAI 2022 Top Reviewer](#)
Conference on Uncertainty in Artificial Intelligence (UAI 2022)
- 2022 [ICML 2022 Participation Grant](#)
International Conference on Machine Learning (ICML 2022)
- 2021 [ICLR 2021 Outstanding Reviewer](#)
International Conference on Learning Representations (ICLR 2021) Reviewer Award (Top 10%)
- 2020 [ORIE Field Fellowship](#)
Eleanor and Howard Morgan PhD'68 Graduate Fellowship, Fall 2020
- 2019 [Young Talent Scholarship Programme 2019](#)
From the Vingroup Innovation Foundation (VINIF) for outstanding students who are pursuing the domestic postgraduate study programmes
- 2016 – 2018 [Students Scholarship in National Program](#)
for the Development of Mathematics until 2020
- 2016 [First Prize on Algebra](#)
In Vietnam Mathematics Competition for University Students (nationwide award)

TALKS

- 07/2024 [Stochastic ISTA/FISTA Adaptive Step Search Algorithms for Convex Composite Optimization.](#)
International Symposium on Mathematical Programming (ISMP 2024), Montreal, Canada
- 12/2023 [On the Convergence to a Global Solution of Shuffling-Type Gradient Algorithms.](#)
Conference on Neural Information Processing Systems (NeurIPS 2023), New Orleans, LA
- 10/2023 [Stochastic Optimization Methods with Momentum.](#)
INFORMS Annual Meeting 2023, Phoenix, AZ
- 01/2023 [Shuffling Gradient Methods for Finite-sum Optimization.](#)
Institute of Mathematics, Vietnam Academy of Science and Technology, Hanoi, Vietnam
- 10/2022 [Nesterov Accelerated Shuffling Gradient Method.](#)
INFORMS Annual Meeting 2022, Indianapolis, IN
- 07/2022 [Nesterov Accelerated Shuffling Gradient Method for Convex Optimization.](#)
International Conference on Machine Learning (ICML 2022), Baltimore, MD
- 10/2021 [Shuffling Gradient-Based Methods](#)
INFORMS Annual Meeting 2021, Anaheim, CA

07/2021 [SMG: A Shuffling Gradient-Based Method with Momentum](#)
International Conference on Machine Learning (ICML 2021), virtual conference

OTHER EXPERIENCES

[Teaching Assistant - Cornell University](#)

Fall 2024 [ORIE 6730 Mathematics of Deep Learning](#)
Spring 2024 [ORIE 3310 Optimization II](#)
Fall 2022 [MATH 2940 Linear Algebra for Engineers](#)
Spring 2021 [ORIE 3510 Introduction to Engineering Stochastic Processes](#)

[Mentorship](#)

04/2024 – [Duc Toan Nguyen](#)
Present Undergraduate student, Mathematics and Computer Science, Texas Christian University. (co-advise with Dr. Lam M. Nguyen)
09/2022 – [Anh Duy Nguyen](#)
09/2023 Ph.D. student, Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign. (co-advise with Dr. Lam M. Nguyen)
06/2022 – [Angelos Assos](#)
05/2023 Undergraduate student, Computer Science and Mathematics, Massachusetts Institute of Technology. (co-advise with Dr. Lam M. Nguyen and Prof. Luca Daniel)

SKILLS

[Programming](#) Python, MATLAB, PyTorch, TensorFlow, Keras, CPLEX, Gurobi.
[Research](#) Optimization, Machine Learning, Time Series Analysis, Mathematical Modelling.
[Language](#) Vietnamese (native), English (proficient)

REFERENCES

Katya Scheinberg, Ph.D.

[Coca-Cola Foundation Chair and Professor, H. Milton Stewart School of Industrial and Systems Engineering, Georgia Institute of Technology](#)
312 Groseclose Building, 765 Ferst Dr, Atlanta, GA 30332, USA
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Lam M. Nguyen, Ph.D.

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1101 Kitchawan Rd, Yorktown Heights, NY 10598, USA
✉ lamnguyen.mltd@ibm.com <https://researcher.watson.ibm.com/researcher/view.php?person=ibm-lamnguyen.mltd>

Quoc Tran-Dinh, Ph.D.

[Associate Professor, Department of Statistics and Operations Research, The University of North Carolina at Chapel Hill](#)
333 Hanes Hall, Chapel Hill, NC 27599, USA
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Marten van Dijk, Ph.D.

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