Lam M. Nguyen

✉ LamNguyen.MLTD@gmail.com · https://lamnguyen-mltd.github.io/

(Updated on 10/21/2021)

EDUCATION

2014 – 2018 **Ph.D.**, Department of Industrial and Systems Engineering, *Lehigh University,* Bethlehem, PA
Thesis advisors: *Katya Scheinberg, Martin Takac,* and *Alexander L. Stolyar*
Thesis title: A Service System with On-Demand Agents, Stochastic Gradient Algorithms and the SARAH Algorithm
Elizabeth V. Stout Dissertation Award
Research areas: Optimization for Large Scale Problems, Machine Learning, Deep Learning, Stochastic Models, Optimal Control

2011 – 2013 **M.B.A.**, College of Business, *McNeese State University,* Lake Charles, LA
Beta Gamma Sigma (Academic Honor)

2004 – 2008 **B.S.**, Applied Mathematics and Computer Science, Faculty of Computational Mathematics and Cybernetics, *Lomonosov Moscow State University*, Moscow, Russia
Thesis advisor: *Vladimir I. Dmitriev*
Thesis title: Methods for Detecting Hidden Period in Some Economics Processes

RESEARCH EXPERIENCE

04/2021 – Present **Research Staff Member,** *IBM Research, Thomas J. Watson Research Center,* Yorktown Heights, NY
Research areas: Optimization, Machine Learning, Explainable AI

10/2018 – 03/2021 **Research Scientist,** *IBM Research, Thomas J. Watson Research Center,* Yorktown Heights, NY
Research areas: Optimization, Machine Learning, Deep Learning, Reinforcement Learning, AI Solutions, Explainable AI

05/2018 – 08/2018 **Research Intern,** *IBM Research, Thomas J. Watson Research Center,* Yorktown Heights, NY
Research areas: Optimization, Machine Learning, Deep Learning, Reinforcement Learning

08/2017 – 05/2018 **Research Co-op,** *IBM Research, Thomas J. Watson Research Center,* Yorktown Heights, NY
Research areas: Optimization, Machine Learning, Deep Learning

06/2017 – 08/2017 **Research Intern,** *IBM Research, Thomas J. Watson Research Center,* Yorktown Heights, NY
Research areas: Optimization, Machine Learning, Deep Learning

09/2014 – 05/2017 **Research Assistant,** *Lehigh University,* Bethlehem, PA
Research areas: Optimization for Large Scale Problems, Machine Learning, Deep Learning, Stochastic Models, Optimal Control

01/2012 – 12/2013 **Graduate (Research) Assistant,** *McNeese State University,* Lake Charles, LA
Research areas: Operations Management and Finance

GRANT EXPERIENCE

01/2021 – Present **IBM PI,** *"Safety Structures, Certification, and Training for AI in the Feedback Loop",* MIT-IBM Watson AI Lab Project.
IBM PI: **Lam M. Nguyen**, Subhro Das, Tsui-Wei Weng
MIT PI: Alexandre Megretski, Luca Daniel

09/2020 – 09/2021 **IBM PI,** *"Hierarchical Disentangled Representations for Scalable Multi-agent Reinforcement Learning",* MIT-IBM Watson AI Lab Exploratory Projects, $100K.
IBM PI: Tsui-Wei Weng, **Lam M. Nguyen**
MIT PI: Cathy Wu

PUBLICATIONS

[26] FedDR - Randomized Douglas-Rachford Splitting Algorithms for Nonconvex Federated Composite Optimization.
Quoc Tran-Dinh, Nhan Pham, Dzung T. Phan, **Lam M. Nguyen**
*The 35th Conference on Neural Information Processing Systems (**NeurIPS 2021**), 2021 (26% acceptance rate)*

[25] Ensembling Graph Predictions for AMR Parsing.
Thanh Lam Hoang, Gabriele Picco, Yufang Hou, Young-Suk Lee, **Lam M. Nguyen**, Dzung T. Phan, Vanessa López, Ramon Fernandez Astudillo
*The 35th Conference on Neural Information Processing Systems (**NeurIPS 2021**), 2021 (26% acceptance rate)*

[24] On the Equivalence between Neural Network and Support Vector Machine.
Yilan Chen, Wei Huang, **Lam M. Nguyen**, Tsui-Wei Weng
*The 35th Conference on Neural Information Processing Systems (**NeurIPS 2021**), 2021 (26% acceptance rate)*

[23] A Unified Convergence Analysis for Shuffling-Type Gradient Methods.
Lam M. Nguyen, Quoc Tran-Dinh, Dzung T. Phan, Phuong Ha Nguyen, Marten van Dijk
*Journal of Machine Learning Research (**JMLR**), volume 22, 1-43, 2021*

[22] Ensuring the Quality of Optimization Solutions in Data Generated Optimization Models.
Segev Wasserkrug, Orit Davidovith, Evgeny Shindin, Dharmashankar Subramanian, Parikshit Ram, Pavankumar Murali, Dzung Phan, Nianjun Zhou, **Lam M. Nguyen**
*The 30th International Joint Conference on Artificial Intelligence (**IJCAI 2021**), Data Science Meets Optimisation, DSO@IJCAI2021, 2021*

[21] SMG: A Shuffling Gradient-Based Method with Momentum.
Trang H. Tran, **Lam M. Nguyen**, Quoc Tran-Dinh
*The 38th International Conference on Machine Learning (**ICML 2021**), PMLR 139, 2021 (21.47% acceptance rate)*

[20] Regression Optimization for System-level Production Control.
Dzung T. Phan, **Lam M. Nguyen**, Pavankumar Murali, Nhan H. Pham, Hongsheng Liu, Jayant R. Kalagnanam
*The 2021 American Control Conference (**ACC 2021**), 2021*

[19] Hogwild! over Distributed Local Data Sets with Linearly Increasing Mini-Batch Sizes.
Nhuong V. Nguyen, Toan N. Nguyen, Phuong Ha Nguyen, Quoc Tran-Dinh, **Lam M. Nguyen**, Marten van Dijk
*The 24th International Conference on Artificial Intelligence and Statistics (**AISTATS 2021**), 2021 (29.8% acceptance rate)*

[18] A Hybrid Stochastic Optimization Framework for Stochastic Composite Nonconvex Optimization.
Quoc Tran-Dinh, Nhan H. Pham, Dzung T. Phan, **Lam M. Nguyen**
*Mathematical Programming (**MAPR**), 2021*

[17] Hybrid Variance-Reduced SGD Algorithms for Nonconvex-Concave Minimax Problems.
Quoc Tran-Dinh, Deyi Liu, **Lam M. Nguyen**
*The 34th Conference on Neural Information Processing Systems (**NeurIPS 2020**), 2020 (20.1% acceptance rate)*

[16] A Scalable MIP-based Method for Learning Optimal Multivariate Decision Trees.
Haoran Zhu, Pavankumar Murali, Dzung T. Phan, **Lam M. Nguyen**, Jayant R. Kalagnanam
*The 34th Conference on Neural Information Processing Systems (**NeurIPS 2020**), 2020 (20.1% acceptance rate)*

[15] Inexact SARAH Algorithm for Stochastic Optimization.
Lam M. Nguyen, Katya Scheinberg, Martin Takac
*Optimization Methods and Software (**GOMS**), volume 36(1), 237-258, 2020*

[14] Pruning Deep Neural Networks with L0-constrained Optimization.
Dzung T. Phan, **Lam M. Nguyen**, Nam H. Nguyen, Jayant R. Kalagnanam
*The 20th IEEE International Conference on Data Mining (**ICDM 2020**), 2020 (19.7% acceptance rate)*

[13] Stochastic Gauss-Newton Algorithms for Nonconvex Compositional Optimization.
Quoc Tran-Dinh, Nhan H. Pham, **Lam M. Nguyen**
*The 37th International Conference on Machine Learning (**ICML 2020**), PMLR 119, 2020 (21.8% acceptance rate)*

[12] ProxSARAH: An Efficient Algorithmic Framework for Stochastic Composite Nonconvex Optimization.
Nhan H. Pham, **Lam M. Nguyen**, Dzung T. Phan, Quoc Tran-Dinh
*Journal of Machine Learning Research (**JMLR**), volume 21(110), 1-48, 2020*
IBM 2020 Pat Goldberg Memorial Best Paper Competition - Finalist

[11] A Hybrid Stochastic Policy Gradient Algorithm for Reinforcement Learning.
Nhan H. Pham, **Lam M. Nguyen**, Dzung T. Phan, Phuong Ha Nguyen, Marten van Dijk, Quoc Tran-Dinh
*The 23rd International Conference on Artificial Intelligence and Statistics (**AISTATS 2020**), PMLR 108, 2020*

[10] New Convergence Aspects of Stochastic Gradient Algorithms.
Lam M. Nguyen, Phuong Ha Nguyen, Peter Richtarik, Katya Scheinberg, Martin Takac, Marten van Dijk
*Journal of Machine Learning Research (**JMLR**), volume 20(176), 1-49, 2019*

[9] Tight Dimension Independent Lower Bound on the Expected Convergence Rate for Diminishing Step Sizes in SGD.
Phuong Ha Nguyen, **Lam M. Nguyen**, Marten van Dijk
*The 33th Conference on Neural Information Processing Systems (**NeurIPS 2019**), 2019 (21.17% acceptance rate)*

[8] PROVEN: Verifying Robustness of Neural Networks with a Probabilistic Approach.
Tsui-Wei Weng, Pin-Yu Chen*, Lam M. Nguyen*, Mark S. Squillante*, Akhilan Boopathy, Ivan Oseledets, Luca Daniel
*The 36th International Conference on Machine Learning (**ICML 2019**), PMLR 97, 2019 (22.5% acceptance rate)*

[7] Characterization of Convex Objective Functions and Optimal Expected Convergence Rates for SGD.
Marten van Dijk, **Lam M. Nguyen**, Phuong Ha Nguyen, Dzung T. Phan
*The 36th International Conference on Machine Learning (**ICML 2019**), PMLR 97, 2019 (22.5% acceptance rate)*

[6] ChieF: A Change Pattern based Interpretable Failure Analyzer.
Dhaval Patel, **Lam M. Nguyen**, Akshay Rangamani, Shrey Shrivastava, Jayant Kalagnanam
*2018 IEEE International Conference on Big Data (**IEEE BigData 2018**), 2018*

[5] SGD and Hogwild! Convergence Without the Bounded Gradients Assumption.
Lam M. Nguyen, Phuong Ha Nguyen, Marten van Dijk, Peter Richtarik, Katya Scheinberg, Martin Takac
*The 35th International Conference on Machine Learning (**ICML 2018**), PMLR 80, 2018 (25% acceptance rate)*
IBM Research AI – Selected Publications 2018

[4] SARAH: A Novel Method for Machine Learning Problems Using Stochastic Recursive Gradient.
Lam M. Nguyen, Jie Liu, Katya Scheinberg, Martin Takac
*The 34th International Conference on Machine Learning (**ICML 2017**), PMLR 70:2613-2621, 2017 (25% acceptance rate)*
Van Hoesen Family Best Publication Award

[3] A Queueing System with On-demand Servers: Local Stability of Fluid Limits.
Lam M. Nguyen, Alexander L. Stolyar
*Queueing Systems (**QUESTA**), 1-26, Springer, 2017*

[2] A Service System with Randomly Behaving On-demand Agents.
Lam M. Nguyen, Alexander L. Stolyar
*The 42nd International Conference on Measurement and Modeling of Computer Systems (**SIGMETRICS 2016**), ACM SIGMETRICS Performance Evaluation Review, 44(1):365-366, 2016 (25% acceptance rate)*

[1] CEO Compensation: Does Financial Crisis Matter?
Prasad Vemala, **Lam Nguyen**, Dung Nguyen, Alekhya Kommasani
International Business Research, 7(4):125-131, 2014

PREPRINTS

[10] Differential Private Hogwild! over Distributed Local Data Sets.
Marten van Dijk, Nhuong V. Nguyen, Toan N. Nguyen, **Lam M. Nguyen**, Phuong Ha Nguyen
Technical report, arXiv preprint, 2021

[9] An Optimal Hybrid Variance-Reduced Algorithm for Stochastic Composite Nonconvex Optimization.
Deyi Liu, **Lam M. Nguyen**, Quoc Tran-Dinh
Technical report, arXiv preprint, 2020

[8] Asynchronous Federated Learning with Reduced Number of Rounds and with Differential Privacy from Less Aggregated Gaussian Noise.
Marten van Dijk, Nhuong V. Nguyen, Toan N. Nguyen, **Lam M. Nguyen**, Quoc Tran-Dinh, Phuong Ha Nguyen
Technical report, arXiv preprint, 2020

[7] Finite-Time Analysis of Stochastic Gradient Descent under Markov Randomness.
Thinh T. Doan, **Lam M. Nguyen**, Nhan H. Pham, Justin Romberg
Technical report, arXiv preprint, 2020

[6] Convergence Rates of Accelerated Markov Gradient Descent with Applications in Reinforcement Learning.
Thinh T. Doan, **Lam M. Nguyen**, Nhan H. Pham, Justin Romberg
Technical report, arXiv preprint, 2020

[5] Buffer Zone based Defense against Adversarial Examples in Image Classification.
Kaleel Mahmood*, Phuong Ha Nguyen*, **Lam M. Nguyen**, Thanh Nguyen, Marten van Dijk
Technical report, arXiv preprint, 2019

[4] Hybrid Stochastic Gradient Descent Algorithms for Stochastic Nonconvex Optimization.
Quoc Tran-Dinh, Nhan H. Pham, Dzung T. Phan, **Lam M. Nguyen**
Technical report, arXiv preprint, 2019

[3] Finite-Sum Smooth Optimization with SARAH.
Lam M. Nguyen, Marten van Dijk, Dzung T. Phan, Phuong Ha Nguyen, Tsui-Wei Weng, Jayant R. Kalagnanam
Technical report, arXiv preprint, 2019

[2] When Does Stochastic Gradient Algorithm Work Well?
Lam M. Nguyen, Nam H. Nguyen, Dzung T. Phan, Jayant R. Kalagnanam, Katya Scheinberg
Technical report, arXiv preprint, 2018

[1] Stochastic Recursive Gradient Algorithm for Nonconvex Optimization
Lam M. Nguyen, Jie Liu, Katya Scheinberg, Martin Takac
Technical report, arXiv preprint, 2017

PATENTS

[1] Prediction Optimization for System-level Production Control. *Patent 11099529*
Dzung T. Phan, **Lam M. Nguyen**, Pavankumar Murali, Jayant R. Kalagnanam

PATENTS APPLICATIONS

[20] System and Method for Blending Graph Predictions. *(Pending). To be filed*
Thanh Lam Hoang, Gabriele Picco, Yufang Hou, Young-Suk Lee, **Lam M. Nguyen**, Dzung Tien Phan, Vanessa Lopez Garcia, Ramon Fernandez Astudillo

[19] System and Methods for Optimizer Agnostic and Interactive Explanations for Large Scale Schedules. *(Pending). To be filed*
Surya Shravan Kumar Sajja, Kanthi Sarpatwar, **Lam M. Nguyen**, Yuan Yuan Jia, Stephane Michel, Roman Vaculin

[18] A Method for Active Learning for Class-Imbalanced Datasets Based on Generalization Bound Minimization. *(Pending). To be filed*
Dzung Tien Phan, Huozhi Zhou, **Lam M. Nguyen**, Chandrasekhara K. Reddy, Jayant R. Kalagnanam

[17] Interpretable Clustering via Multi-Polytope Machines. *(Pending). To be filed*
Dzung T. Phan, Connor Lawless, Jayant R. Kalagnanam, **Lam M. Nguyen**, Chandrasekhara K. Reddy

[16] A Method and System for Condition-Based Asset Fleet Maintenance Rescheduling. *(Pending). To be filed*
Pavankumar Murali, Dzung T. Phan, Nianjun Zhou, **Lam M. Nguyen**

[15] Method and System of Layer and Component Oriented Optimization Flexible and Pluggable Architecture for Asset Management Platform. *(Pending). To be filed*
Nianjun Zhou, Pavankumar Murali, Dzung T. Phan, **Lam M. Nguyen**

[14] System and Method for unsupervised Learning of Semantic Graph from textual data and language generation from Semantic grapH via Reinforcement learning. *(Pending). To be filed*
Hoang Thanh Lam, Dzung T. Phan, Gabriele Picco, **Lam Minh Nguyen**, Marco Luca Sbodio, Vanessa Lopez Garcia

[13] Method, Apparatus, and System of Dynamic Asset Management Optimization with Integration of Asset Failure and Asset Health Prediction Change. *(Pending). To be filed*
Nianjun Zhou, Dzung T. Phan, Pavankumar Murali, **Lam M. Nguyen**

[12] An End-to-End Model for Training Decision Trees with Dimension Reduction. *(Pending). To be filed*
Dzung T. Phan, Michael Huang, Pavankumar Murali, **Lam M. Nguyen**

[11] Method for Reasonable Matching Learning. *(Pending). To be filed*
Hoang Thanh Lam, Dzung T. Phan, Gabriele Picco, **Lam M. Nguyen**, Vanessa Lopez Garcia

[10] A Method and System for Performing Distributed Training of Large-Scale Deep Neural Networks and Machine Learning Models. *(Pending). To be filed*
Lam M. Nguyen, Dung Tien Phan, Jayant R. Kalagnanam

[9] Multi-Polytope Machine for Classification. *Filed on September 30, 2021*
Dzung T. Phan, **Lam M. Nguyen**, Jayant R. Kalagnanam, Chandrasekhara K. Reddy, Srideepika Jayaraman

[8] Site-Wide Optimization for Mixed Regression Models and Mixed Control Variables. *Filed on May 25, 2021*
Dung Tien Phan, Nhan H. Pham, **Lam M. Nguyen**

[7] A Shuffling-Type Gradient Method for Training Machine Learning models with Big Data. *Filed on December 01, 2020*
Lam M. Nguyen, Dung Tien Phan

[6] Site-wide Operations Management Optimization for Manufacturing and Processing Control. *Filed on August 20, 2020*
Dung Tien Phan, **Lam M. Nguyen**, Pavankumar Murali, and Hongsheng Liu

[5] System-level Control using Tree-based Regression with Outlier Removal. *Filed on August 20, 2020*
Dung Tien Phan, Pavankumar Murali, **Lam M. Nguyen**

[4] A Method for Tuning Hyper-Parameters for Classification. *Filed on July 27, 2020*
Dung Tien Phan, Hongsheng Liu, **Lam M. Nguyen**

[3] A Method and System for Automated Generation of Optimization Model for System-Wide Plant Optimization. *Filed on July 24, 2020*
Dung Tien Phan, **Lam M. Nguyen**, Pavankumar Murali, Nianjun Zhou

[2] System and Method for Quality Mode Prediction in Manufacturing and Process Industries. *Filed on February 20, 2020*
Pavankumar Murali, Haoran Zhu, Dung Tien Phan, **Lam M. Nguyen**

[1] Compression of Deep Neural Networks. *Filed on March 13, 2019. US Patent Application 20200293876*
Dzung T. Phan, **Lam M. Nguyen**, Nam H. Nguyen, Jayant R. Kalagnanam

THESES

2018 A Service System with On-Demand Agents, Stochastic Gradient Algorithms and the SARAH Algorithm.
Lam M. Nguyen
PhD dissertation, Lehigh University, Bethlehem, PA
Elizabeth V. Stout Dissertation Award

2008 Methods for Detecting Hidden Period in Some Economics Processes.
Lam M. Nguyen
Undergraduate thesis, Lomonosov Moscow State University, Moscow, Russia

WORKSHOPS

[1] New Frontiers in Federated Learning: Privacy, Fairness, Robustness, Personalization and Data Ownership.
Nghia Hoang, **Lam M. Nguyen**, Pin-Yu Chen, Tsui-Wei Weng, Sara Magliacane, Bryan Kian Hsiang Low, Anoop Deoras
*Workshop at The 35th Conference on Neural Information Processing Systems (**NeurIPS 2021**), 2021*

INVITED TALKS

10/2021 Hogwild! Over Distributed Local Data Sets With Linearly Increasing Mini-batch Sizes.
INFORMS Annual Meeting, Anaheim, CA

11/2020 A Unified Convergence Analysis for Shuffling-Type Gradient Methods.
INFORMS Annual Meeting, Virtual Conference

10/2019	Finite-Sum Smooth Optimization with SARAH. *INFORMS Annual Meeting*, Seattle, WA
11/2018	Inexact SARAH for Solving Stochastic Optimization Problems. *INFORMS Annual Meeting*, Phoenix, AZ
08/2018	Inexact SARAH for Solving Stochastic Optimization Problems. *DIMACS/TRIPODS/MOPTA*, Bethlehem, PA
03/2018	When does stochastic gradient algorithm work well? *INFORMS Optimization Society Conference*, Denver, CO
10/2017	SARAH: Stochastic Recursive Gradient Algorithm. *INFORMS Annual Meeting*, Houston, TX
08/2017	SARAH Algorithm. *IBM Thomas J. Watson Research Center*, Yorktown Heights, NY
11/2016	A Queueing System with On-demand Servers: Local Stability of Fluid Limits. *INFORMS Annual Meeting*, Nashville, TN
08/2016	A Queueing System with On-demand Servers: Local Stability of Fluid Limits. *Modeling and Optimization: Theory and Applications*, Bethlehem, PA

PROFESSIONAL ACTIVITIES

EDITORSHIP (PEER-REVIEWED JOURNALS)

2021 – Present	**Action Editor**, Machine Learning
Starting 2022	**Action Editor**, Neural Networks
Starting 2022	**Associate Editor**, IEEE Transactions on Neural Networks and Learning Systems

AREA CHAIR / META-REVIEWER/ SENIOR PROGRAM COMMITTEE (PEER-REVIEWED CONFERENCES)

2020 – 2021	**Area Chair**, International Conference on Machine Learning (ICML)
2021 – 2022	**Area Chair**, International Conference on Learning Representations (ICLR)
2021 – 2022	**Area Chair**, International Conference on Artificial Intelligence and Statistics (AISTATS)
2022	**Senior Program Committee**, AAAI Conference on Artificial Intelligence (AAAI)

REVIEWER / PROGRAM COMMITTEE (PEER-REVIEWED CONFERENCES)

2017 – 2019	International Conference on Machine Learning (ICML)
2017 – 2021	Conference on Neural Information Processing Systems (NIPS/NeurIPS)
2018 – 2020	International Conference on Learning Representations (ICLR)
2019 – 2020	International Conference on Artificial Intelligence and Statistics (AISTATS)
2021	Conference on Learning Theory (COLT)
2019 – 2021	AAAI Conference on Artificial Intelligence (AAAI)
2020	International Joint Conferences on Artificial Intelligence (IJCAI)
2019 – 2022	IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)
2019 – 2021	IEEE International Conference on Computer Vision (ICCV)
2020	European Conference on Computer Vision (ECCV)
2019 – 2021	Conference on Uncertainty in Artificial Intelligence (UAI)

REVIEWER (PEER-REVIEWED JOURNALS)

2018 – 2021	Journal of Machine Learning Research
2020 – 2021	Mathematical Programming
2020 – 2021	SIAM Journal on Optimization
2021	SIAM Journal on Numerical Analysis
2020 – 2021	IEEE Transactions on Neural Networks and Learning Systems
2019 – 2020	IEEE Transactions on Signal Processing

2019	Artificial Intelligence
2018	Optimization Methods and Software
2020	SIAM Journal on Mathematics of Data Science
	REVIEWER (PROPOSALS)
2021	Workshop proposals, NeurIPS 2021 Workshops
	MEMBER
2020 – Present	**Editorial Board**, Journal of Machine Learning Research
2021 – Present	**Editorial Board**, Machine Learning
Starting 2022	**Editorial Board**, IEEE Transactions on Neural Networks and Learning Systems
Starting 2022	**Editorial Board**, Neural Networks
2021	**Program Committee**, "*New Frontiers in Federated Learning: Privacy, Fairness, Robustness, Personalization and Data Ownership (NFFL 2021)*", NeurIPS 2021 Workshop
2020	**Program Committee**, "*Optimization for Machine Learning (OPT 2020)*", NeurIPS 2020 Workshop
2018	**Program Committee**, "*Modern Trends in Nonconvex Optimization for Machine Learning*", ICML 2018 Workshop
	SESSION CHAIR / ORGANIZER (CONFERENCES)
	International Conference on Machine Learning (ICML)
2021	- Sessions "*Optimization (Stochastic)*" and "*Optimization (Nonconvex)*"
	International Conference on Learning Representations (ICLR)
2021	- Session "*Oral Session 6*"
	International Conference on Artificial Intelligence and Statistics (AISTATS)
2021	- Session "*Theory and Practice of Machine Learning*"
	INFORMS Annual Meeting
2021	- Session "*Recent Advances in Stochastic Gradient Algorithms*"
2020	- Session "*Recent Advances in Stochastic Gradient Algorithms for Machine Learning*"
2019	- Session "*Fast and Provable Nonconvex Optimization Algorithms in Machine Learning*"
2018	- Session "*Recent Advances in Optimization Methods for Machine Learning*"
	DIMACS/TRIPODS/MOPTA
2018	- Sessions "*Sparse Optimization*" and "*Stochastic Gradient Descent*"
	ORGANIZER (WORKSHOPS)
	Conference on Neural Information Processing Systems (NeurIPS)
2021	- Workshop "*New Frontiers in Federated Learning: Privacy, Fairness, Robustness, Personalization and Data Ownership*" (NFFL 2021)
	IBM ACTIVITIES
2021 – Present	**Champion**, Professional Interest Community (PIC) - Learning
2020	**Reviewer**, IBM Ph.D. Fellowships
	SOCIETY MEMBERSHIPS
2016 – Present	Society for Industrial and Applied Mathematics (SIAM)
2014 – Present	The Institute for Operations Research and the Management Sciences (INFORMS)
2014 – Present	Beta Gamma Sigma (The International Business Honor Society)

MENTORSHIP

06/2021 – Present	**Quang M. Nguyen**, Ph.D. student, Department of Electrical Engineering and Computer Science, *Massachusetts Institute of Technology*.
06/2021 – Present	**Hoang H. Nguyen**, Ph.D. student, H. Milton Stewart School of Industrial and Systems Engineering, *Georgia Institute of Technology*.

05/2021 – 08/2021 **Nathanael Assefa**, Ph.D. student, Department of Computer Science, *University of Illinois Urbana-Champaign* (IBM Research Intern).

05/2021 – 08/2021 **Connor Lawless**, Ph.D. student, School of Operations Research and Information Engineering, *Cornell University* (IBM Research Intern).

05/2021 – 08/2021 **Huozhi Zhou**, Ph.D. student, Department of Electrical and Computer Engineering, *University of Illinois Urbana-Champaign* (IBM Research Intern).

03/2021 – Present **Wang Zhang**, Ph.D. student, Department of Electrical Engineering and Computer Science, *Massachusetts Institute of Technology* (student of Prof. Luca Daniel).

03/2021 – Present **Yilan Chen**, M.S. student, Department of Computer Science and Engineering Department, *University of California San Diego* (student of Prof. Tsui-Wei Weng).

09/2020 – 09/2021 **Vindula Jayawardana**, Ph.D. student, Department of Electrical Engineering and Computer Science, *Massachusetts Institute of Technology* (student of Prof. Cathy Wu).

06/2020 – 09/2020 **Michael Huang**, Ph.D. student, Department of Data Science and Operations, Marshall School of Business, *University of Southern California* (IBM Research Intern).

10/2019 – Present **Trang H. Tran**, Ph.D. student, School of Operations Research and Information Engineering, *Cornell University* (student of Prof. Katya Scheinberg).

05/2019 – 12/2019 **Hongsheng Liu**, Ph.D. student, Department of Statistics and Operations Research, *University of North Carolina at Chapel Hill* (IBM Research Intern). Now at *Huawei Technologies Co.*, Ltd., China.

01/2019 – 08/2019 **Haoran Zhu**, Ph.D. student, Department of Industrial and Systems Engineering, *University of Wisconsin – Madison* (IBM Research Intern).

01/2019 – 06/2020 **Toan N. Nguyen**, Ph.D. student, Department of Computer Science and Engineering, *University of Connecticut* (student of Prof. Marten van Dijk).

01/2019 – Present **Nhuong V. Nguyen**, Ph.D. student, Department of Computer Science and Engineering, *University of Connecticut* (student of Prof. Marten van Dijk).

08/2018 – 12/2021 **Nhan H. Pham**, Ph.D. student, Department of Statistics and Operations Research, *University of North Carolina at Chapel Hill* (student of Prof. Quoc Tran-Dinh) (IBM Research Intern).

PH.D. COMMITTEE MEMBERSHIP

10/2021 – Present **Trang H. Tran**, Ph.D. student, School of Operations Research and Information Engineering, *Cornell University* (student of Prof. Katya Scheinberg).

09/2020 – Present **Deyi Liu**, Ph.D. student, Department of Statistics and Operations Research, *University of North Carolina at Chapel Hill* (student of Prof. Quoc Tran-Dinh).

OTHER WORK EXPERIENCE

09/2014 – 05/2015 **Teaching Assistant**, *Lehigh University*, Bethlehem, PA
Courses: Engineering Probability (ISE 111), Applied Engineering Statistics (ISE 121)

05/2013 – 08/2013 **Graduate Assistant (Web Developer)**, College of Business, *McNeese State University*, Lake Charles, LA

01/2012 – 12/2013 **Graduate (Teaching) Assistant**, *McNeese State University*, Lake Charles, LA
Courses: Human Resource Management (MGMT 310), Staffing (MGMT 315), Strategic Management (MGMT 481), Management Theory and Organizational Behavior (MGMT 604), Issues in Global Business (BADM 218), Entrepreneurial Finance for Small Business (FIN 308)

09/2008 – 08/2009 **Software Engineer**, *FPT Software Company*, Ho Chi Minh City, Vietnam

09/2007 – 05/2008 **Teaching Assistant**, *Lomonosov Moscow State University*, Moscow, Russia
Courses: Mathematical Analysis (Calculus), Linear Algebra and Analytic Geometry

HONORS & AWARDS

2019	IBM Outstanding Technical Achievement Award
2019	NeurIPS 2019 Top Reviewers
2019	Elizabeth V. Stout Dissertation Award, *Lehigh University*, Bethlehem, PA
2018	Van Hoesen Family Best Publication Award, *Lehigh University*, Bethlehem, PA
2016 – 2017	Dean's Doctoral Fellowship (RCEAS), *Lehigh University*, Bethlehem, PA
2014 – 2015	Dean's Doctoral Assistantship, *Lehigh University*, Bethlehem, PA
2014	Beta Gamma Sigma (Academic Honor Society)