

# Lam M. Nguyen

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(Updated on 06/15/2021)

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## EDUCATION

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|-------------|---|
| 2014 – 2018 | <p><b>Ph.D.</b>, Department of Industrial and Systems Engineering, <i>Lehigh University</i>, Bethlehem, PA</p> <p><u>Thesis advisors</u>: <i>Katya Scheinberg</i>, <i>Martin Takac</i>, and <i>Alexander L. Stolyar</i></p> <p><u>Thesis title</u>: A Service System with On-Demand Agents, Stochastic Gradient Algorithms and the SARAH Algorithm</p> <p><b>Elizabeth V. Stout Dissertation Award</b></p> <p><u>Research areas</u>: Optimization for Large Scale Problems, Machine Learning, Deep Learning, Stochastic Models, Optimal Control</p> |
| 2011 – 2013 | <p><b>M.B.A.</b>, College of Business, <i>McNeese State University</i>, Lake Charles, LA</p> <p><b>Beta Gamma Sigma (Academic Honor)</b></p>  |
| 2004 – 2008 | <p><b>B.S.</b>, Applied Mathematics and Computer Science, Faculty of Computational Mathematics and Cybernetics, <i>Lomonosov Moscow State University</i>, Moscow, Russia</p> <p><u>Thesis advisor</u>: <i>Vladimir I. Dmitriev</i></p> <p><u>Thesis title</u>: Methods for Detecting Hidden Period in Some Economics Processes</p>  |

## RESEARCH EXPERIENCE

|                   |  |
|-------------------|--|
| 04/2021 – Present | <p><b>Research Staff Member</b>, <i>IBM Thomas J. Watson Research Center</i>, Yorktown Heights, NY</p> <p>Research areas: Optimization, Machine Learning, Explainable AI</p>   |
| 10/2018 – 03/2021 | <p><b>Research Scientist</b>, <i>IBM Thomas J. Watson Research Center</i>, Yorktown Heights, NY</p> <p>Research areas: Optimization, Machine Learning, Deep Learning, Reinforcement Learning, AI Solutions, Explainable AI</p> |
| 05/2018 – 08/2018 | <p><b>Research Intern</b>, <i>IBM Thomas J. Watson Research Center</i>, Yorktown Heights, NY</p> <p>Research areas: Optimization, Machine Learning, Deep Learning, Reinforcement Learning</p>                                  |
| 08/2017 – 05/2018 | <p><b>Research Co-op</b>, <i>IBM Thomas J. Watson Research Center</i>, Yorktown Heights, NY</p> <p>Research areas: Optimization, Machine Learning, Deep Learning</p>   |
| 06/2017 – 08/2017 | <p><b>Research Intern</b>, <i>IBM Thomas J. Watson Research Center</i>, Yorktown Heights, NY</p> <p>Research areas: Optimization, Machine Learning, Deep Learning</p>  |
| 09/2014 – 05/2017 | <p><b>Research Assistant</b>, <i>Lehigh University</i>, Bethlehem, PA</p> <p>Research areas: Optimization for Large Scale Problems, Machine Learning, Deep Learning, Stochastic Models, Optimal Control</p>                    |
| 01/2012 – 12/2013 | <p><b>Graduate (Research) Assistant</b>, <i>McNeese State University</i>, Lake Charles, LA</p> <p>Research areas: Operations Management and Finance</p>  |

## PUBLICATIONS

- [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)*, 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
- [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)
- [4] **IBM Research AI – Selected Publications 2018**  
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**

[12] Federated Learning with Randomized Douglas-Rachford Splitting Methods.

Nhan H. Pham, **Lam M. Nguyen**, Dzung T. Phan, Quoc Tran-Dinh  
*Technical report, arXiv preprint, 2021*

[11] Differential Private Hogwild! over Distributed Local Data Sets.

Marten van Dijk, Nhung V. Nguyen, Toan N. Nguyen, **Lam M. Nguyen**, Phuong Ha Nguyen  
*Technical report, arXiv preprint, 2021*

[10] An Optimal Hybrid Variance-Reduced Algorithm for Stochastic Composite Nonconvex Optimization.

Deyi Liu, **Lam M. Nguyen**, Quoc Tran-Dinh  
*Technical report, arXiv preprint, 2020*

[9] Asynchronous Federated Learning with Reduced Number of Rounds and with Differential Privacy from Less Aggregated Gaussian Noise.

Marten van Dijk, Nhung V. Nguyen, Toan N. Nguyen, **Lam M. Nguyen**, Quoc Tran-Dinh, Phuong Ha Nguyen  
*Technical report, arXiv preprint, 2020*

[8] 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*

[7] A Unified Convergence Analysis for Shuffling-Type Gradient Methods.

**Lam M. Nguyen**, Quoc Tran-Dinh, Dzung T. Phan, Phuong Ha Nguyen, Marten van Dijk  
*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*

## PATENT APPLICATIONS

- [16] A Method and System for Kernel Multi-Polytope Machine for Classification.  
(Pending). *To be filed*  
Dzung T. Phan, **Lam M. Nguyen**, Jayant R. Kalagnanam, Chandrasekhara K. Reddy, Srideepika Jayaraman
- [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*

- [12] Nianjun Zhou, Dzung T. Phan, Pavankumar Murali, **Lam M. Nguyen**  
An End-to-End Model for Training Decision Trees with Dimension Reduction.  
(Pending). *To be filed*
- [11] Dzung T. Phan, Michael Huang, Pavankumar Murali, **Lam M. Nguyen**  
Method for Reasonable Matching Learning. (Pending). *To be filed*
- [10] Hoang Thanh Lam, Dzung T. Phan, Gabriele Picco, **Lam M. Nguyen**, Vanessa Lopez Garcia  
A Method and System for Performing Distributed Training of Large-Scale Deep Neural Networks and Machine Learning Models. (Pending). *To be filed*
- [9] **Lam M. Nguyen**, Dung Tien Phan, Jayant R. Kalagnanam  
Site-Wide Optimization for Mixed Regression Models and Mixed Control Variables.  
(Pending). *Filed on May 25, 2021*
- [8] Dung Tien Phan, Nhan H. Pham, **Lam M. Nguyen**  
A Shuffling-Type Gradient Method for Training Machine Learning models with Big Data. *Filed on December 01, 2020*
- [7] **Lam M. Nguyen**, Dung Tien Phan  
Site-wide Operations Management Optimization for Manufacturing and Processing Control. *Filed on August 20, 2020*
- [6] Dung Tien Phan, **Lam M. Nguyen**, Pavankumar Murali, and Hongsheng Liu  
System-level Control using Tree-based Regression with Outlier Removal. *Filed on August 20, 2020*
- [5] Dung Tien Phan, Pavankumar Murali, **Lam M. Nguyen**  
A Method for Tuning Hyper-Parameters for Classification. *Filed on July 27, 2020*
- [4] Dung Tien Phan, Hongsheng Liu, **Lam M. Nguyen**  
A Method and System for Automated Generation of Optimization Model for System-Wide Plant Optimization. *Filed on July 24, 2020*
- [3] Dung Tien Phan, **Lam M. Nguyen**, Pavankumar Murali, Nianjun Zhou  
System and Method for Quality Mode Prediction in Manufacturing and Process Industries. *Filed on February 20, 2020*
- [2] Pavankumar Murali, Haoran Zhu, Dung Tien Phan, **Lam M. Nguyen**.  
Prediction Optimization for System-level Production Control. *Filed on July 23, 2019*
- [1] Dzung T. Phan, **Lam M. Nguyen**, Pavankumar Murali, Jayant R. Kalagnanam  
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**



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|------|--|
|      | <i>PhD dissertation, Lehigh University, Bethlehem, PA</i>                      |
|      | <b>Elizabeth V. Stout Dissertation Award</b>                                   |
| 2008 | <u>Methods for Detecting Hidden Period in Some Economics Processes.</u>        |
|      | <b>Lam M. Nguyen</b>   |
|      | <i>Undergraduate thesis, Lomonosov Moscow State University, Moscow, Russia</i> |

## INVITED TALKS

|         |   |
|---------|---|
| 11/2020 | A Unified Convergence Analysis for Shuffling-Type Gradient Methods.<br><i>INFORMS Annual Meeting</i> , Virtual Conference                               |
| 10/2019 | Finite-Sum Smooth Optimization with SARAH.<br><i>INFORMS Annual Meeting</i> , Seattle, WA   |
| 11/2018 | Inexact SARAH for Solving Stochastic Optimization Problems.<br><i>INFORMS Annual Meeting</i> , Phoenix, AZ  |
| 08/2018 | Inexact SARAH for Solving Stochastic Optimization Problems.<br><i>DIMACS/TRIPODS/MOPTA</i> , Bethlehem, PA  |
| 03/2018 | When does stochastic gradient algorithm work well?<br><i>INFORMS Optimization Society Conference</i> , Denver, CO                                       |
| 10/2017 | SARAH: Stochastic recursive gradient algorithm.<br><i>INFORMS Annual Meeting</i> , Houston, TX  |
| 08/2017 | SARAH algorithm.<br><i>IBM Thomas J. Watson Research Center</i> , Yorktown Heights, NY  |
| 11/2016 | A queueing system with on-demand servers: local stability of fluid limits.<br><i>INFORMS Annual Meeting</i> , Nashville, TN                             |
| 08/2016 | A queueing system with on-demand servers: local stability of fluid limits.<br><i>Modeling and Optimization: Theory and Applications</i> , Bethlehem, PA |

## PROFESSIONAL ACTIVITIES

|                |   |
|----------------|---|
|                | <b>Action Editor / Associate Editor (peer-reviewed journals)</b>                      |
| 2021 - Present | Machine Learning  |
|                | <b>Senior Program Committee – Area Chair (peer-reviewed conferences)</b>              |
| 2020 – 2021    | International Conference on Machine Learning ( <i>ICML</i> )                          |
| 2021 – 2022    | International Conference on Learning Representations ( <i>ICLR</i> )                  |
| 2021           | International Conference on Artificial Intelligence and Statistics ( <i>AISTATS</i> ) |
|                | <b>Program Committee – Reviewer (peer-reviewed conferences)</b>                       |
| 2017 – 2019    | International Conference on Machine Learning ( <i>ICML</i> )                          |
| 2017 – 2021    | Conference on Neural Information Processing Systems ( <i>NIPS/NeurIPS</i> )           |
| 2018 – 2020    | International Conference on Learning Representations ( <i>ICLR</i> )                  |
| 2019 – 2020    | International Conference on Artificial Intelligence and Statistics ( <i>AISTATS</i> ) |

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|----------------|---|
| 2021           | Conference on Learning Theory ( <i>COLT</i> )   |
| 2019 – 2021    | AAAI Conference on Artificial Intelligence ( <i>AAAI</i> )  |
| 2020           | International Joint Conferences on Artificial Intelligence ( <i>IJCAI</i> )   |
| 2019 – 2021    | IEEE/CVF Conference on Computer Vision and Pattern Recognition ( <i>CVPR</i> )  |
| 2019 – 2021    | IEEE International Conference on Computer Vision ( <i>ICCV</i> )  |
| 2020           | European Conference on Computer Vision ( <i>ECCV</i> )  |
| 2019 – 2021    | Conference on Uncertainty in Artificial Intelligence ( <i>UAI</i> )   |
|                | <b>Reviewer (peer-reviewed journals)</b>  |
| 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   |
|                | <b>Member</b>   |
| 2020 – Present | <b>Editorial Board</b> , <i>Journal of Machine Learning Research</i>  |
| 2021 – Present | <b>Editorial Board</b> , <i>Machine Learning</i>  |
| 2020           | <b>Program Committee</b> , Optimization for Machine Learning (OPT 2020), <i>NeurIPS 2020 Workshop</i>                               |
| 2018           | <b>Program Committee</b> , “Modern Trends in Nonconvex Optimization for Machine Learning”, <i>ICML 2018 Workshop</i>                |
|                | <b>Session Chair / Organizer (conferences)</b>  |
| 2021           | Oral Session, ICLR 2021   |
| 2021           | Session “ <i>Theory and Practice of Machine Learning</i> ”, AISTATS 2021  |
| 2020           | Session “ <i>Recent Advances in Stochastic Gradient Algorithms for Machine Learning Applications</i> ”, INFORMS Annual Meeting 2020 |
| 2019           | Session “ <i>Fast and Provable Nonconvex Optimization Algorithms in Machine Learning</i> ”, INFORMS Annual Meeting 2019             |
| 2018           | Session “ <i>Recent Advances in Optimization Methods for Machine Learning</i> ”, INFORMS Annual Meeting 2018                        |
| 2018           | Sessions “ <i>Sparse Optimization</i> ” and “ <i>Stochastic Gradient Descent</i> ”, DIMACS/TRIPODS/MOPTA 2018                       |
|                | <b>Others</b>   |



2020 | **Reviewer**, IBM Ph.D. Fellowships

## PROFESSIONAL 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

05/2021 – Present | **Connor Lawless**, Ph.D. student, *School of Operations Research and Information Engineering, Cornell University* (IBM Research Intern)  
05/2021 – Present | **Huozhi Zhou**, Ph.D. student, *Department of Electrical and Computer Engineering, University of Illinois Urbana-Champaign* (IBM Research Intern)  
09/2020 – Present | **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 – 01/2021 | **Nhuong V. Nguyen**, Ph.D. student, *Department of Computer Science and Engineering, University of Connecticut* (student of Prof. Marten van Dijk)  
08/2018 – Present | **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

09/2020 – Present | **Deyi Liu**, *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*

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|-------------------|--|
| 01/2012 – 12/2013 | <i>University, Lake Charles, LA</i><br><b>Graduate (Teaching) Assistant, McNeese State University, Lake Charles, LA</b><br>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 | <b>Software Engineer, FPT Software Company, Ho Chi Minh City, Vietnam</b>  |
| 09/2007 – 05/2008 | <b>Teaching Assistant, Lomonosov Moscow State University, Moscow, Russia</b><br>Courses: Mathematical Analysis (Calculus), Linear Algebra and Analytic Geometry  |

## GRANT EXPERIENCE

|                   |   |
|-------------------|---|
| 09/2020 – 09/2021 | <b>IBM Co-PI, “Hierarchical Disentangled Representations for Scalable Multi-agent Reinforcement Learning”, MIT-IBM Watson AI Lab Exploratory Projects, \$100K, (MIT PI: Cathy Wu, IBM PI: Tsui-Wei (Lily) Weng)</b> |
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## HONORS & AWARDS

|             |  |
|-------------|--|
| 2019        | IBM Outstanding Technical Achievement Award  |
| 2019        | NeurIPS 2019 Top Reviewers   |
| 2019        | Elizabeth V. Stout Dissertation Award, <i>Lehigh University</i> , Bethlehem, PA    |
| 2018        | Van Hoesen Family Best Publication Award, <i>Lehigh University</i> , Bethlehem, PA |
| 2016 – 2017 | Dean’s Doctoral Fellowship (RCEAS), <i>Lehigh University</i> , Bethlehem, PA       |
| 2014 – 2015 | Dean’s Doctoral Assistantship, <i>Lehigh University</i> , Bethlehem, PA            |
| 2014        | Beta Gamma Sigma (Academic Honor Society)  |
| 2011 – 2013 | Dore Graduate Stipends, <i>McNeese State University</i> , Lake Charles, LA         |