DEYI LIU

Email: deyi@live.unc.edu Website:https://deyiopt.github.io/

EDUCATION

University of North Carolina at Chapel Hill (UNC) Aug. 2017 - Present
Ph.D. in Operations Research (4th year), Expected May 2022 *Advisor: Quoc Tran-Dinh*

Zhejiang University (ZJU) Sept. 2013 - Jun. 2017
B.S. in Mathematics and Applied Mathematics *Major GPA: 3.92/4*

PUBLICATIONS

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

Deyi Liu, Quoc Tran-Dinh, Lam M. Nguyen.
arXiv Preprint 2008.09055

[2] Hybrid variance-reduced SGD algorithms for nonconvex-concave minimax problems

Quoc Tran-Dinh, **Deyi Liu**, Lam M. Nguyen.
arXiv Preprint 1904.09016

[3] Accelerated Primal-Dual Algorithms for a Class of Convex-Concave Saddle-Point Problems with Non-Bilinear Coupling Term

Yuzixuan Zhu, **Deyi Liu**, Quoc Tran-Dinh.
arXiv Preprint 2006.09263

[4] Faster Randomized Primal-Dual Algorithms For Nonsmooth Composite Convex Minimization

Q Tran-Dinh, **Deyi Liu**.
arXiv Preprint 2003.01322

[5] A Newton Frank-Wolfe Method for Constrained Self-Concordant Minimization

Deyi Liu, Volkan Cevher, Quoc Tran-Dinh.
arXiv Preprint 2002.07003

[6] Robust and Generalizable Visual Representation Learning via Random Convolutions

Zhenlin Xu, **Deyi Liu**, Junlin Yang, Marc Niethammer.
arXiv Preprint 2007.13003

[7] An Inexact Interior-Point Lagrangian Decomposition Algorithm with Inexact Oracles

Deyi Liu, Quoc Tran-Dinh.
Journal of Optimization Theory and Applications, 2019.

EXPERIENCE

University of North Carolina at Chapel Hill Sep. 2018 - Present
Research Assistant (advised by Tran-Dinh Quoc) *Chapel Hill, NC*

- Self-concordant Minimization, Stochastic Optimization, Nonconvex-concave problem.

North Carolina State University Jul. 2016 - Aug. 2016
Research Assistant (advised by Zhilin Li) *Raleigh, NC*

- Designed a numerical method to solve unbounded parabolic PDE in Financial Mathematics.

PROFESSIONAL SERVICE

Conference/Journal Reviewer: AISTATS (2019), ICML (2019), NIPS (2019), IEEE Conference on Decision and Control (2019), Computational Optimization and Applications (2019)

AWARDS

Outstanding Achievement Award (Top 1 in Ph.D. qualifying exam), UNC, USA 2017-2018

The Second-Prize of the National Talents Training, ZJU, China 2014-2015

The Second-class Scholarship for Outstanding Merits, ZJU, China 2013-2014

TEACHING ACTIVITIES

Teaching Assistant of STOR 415: Introduction to Optimization (*senior undergraduate level*), 2020 Fall

Teaching Assistant of STOR 641: Stochastic Models in Operations Research I (*graduate level*) 2018 Fall

Teaching Assistant of STOR 155: Introduction to Data Models (*fresh undergraduate level*) 2018 Spring

Teaching Assistant of STOR 445: Stochastic Modeling (*senior undergraduate level*) 2017 Fall

TECHNICAL & LANGUAGE STRENGTHS

Programming: Matlab, Python, R, C, SQL
Framework/Tools: Linux, Latex, SLURM, Sublime