

CURRICULUM VITAE

JING QIN

Department of Mathematics
719 Patterson Office Tower
University of Kentucky
Lexington, KY 40506-0027

Phone: 859-257-6795
Email: jing.qin@uky.edu

EMPLOYMENT

- July 2019 - present: Assistant Professor, Department of Mathematics, University of Kentucky, Lexington, KY.
- July 2016 - June 2019: Assistant Professor, Department of Mathematical Sciences, Montana State University, Bozeman, MT.
- July 2013 - June 2016: Assistant Adjunct Professor, Department of Mathematics, University of California, Los Angeles (UCLA), CA. Supervisor: Prof. Stanley Osher.

EDUCATION

- May 2013, Ph.D., majored in Applied Mathematics, Case Western Reserve University (CWRU), Cleveland, Ohio, USA. Advisor: Prof. Weihong Guo.
- Aug. 2008 - Jul. 2009, graduate student at Department of Mathematics, The University of Alabama (UA), Tuscaloosa, Alabama, USA.
- Jun. 2008, M.S., majored in Differential Geometry, Department of Mathematics, East China Normal University (ECNU), Shanghai, China. Advisor: Prof. Chunli Shen.
- Jun. 2005, B.S., majored in Mathematics and Applied Mathematics, Xuzhou Normal University (XZNU), Xuzhou, Jiangsu Province, China.

RESEARCH INTERESTS

- Image processing and analysis based on PDE/variational methods, inverse problems.
- Optimization and numerical solutions for differential equations.
- Graph regularization and large-scale data analysis.

GRANTS

- 2019-2021: NSF grant DMS-1941197 (PI), *Graph-Based Regularization Techniques and Their Applications*.
- 2018-2019: NSF grant DMS-1818374 (PI), *Graph-Based Regularization Techniques and Their Applications*.
- 2018-2019: MSU Faculty Excellence Grant (PI), *Collaborative Research on Mathematical Imaging*.
- 2014: subcontract from Jet Propulsion Lab 1507730 (PI), *Fast Simultaneous Image Deconvolution and Upscaling Algorithms for Low Resolution Hurricane Imagery*.

PUBLICATIONS

(A) *Book Chapters*

- Natalie Durgin, Rachel Grotheer, Chenxi Huang, Shuang Li, Anna Ma, Deanna Needell, and **Jing Qin**, “[Compressed Anomaly Detection with Multiple Mixed Observations](#),” Gasparovic E., Domeniconi C. (eds) Research in Data Science. Association for Women in Mathematics Series, vol 17, 211-237. Springer (2019).
- Natalie Durgin, Rachel Grotheer, Chenxi Huang, Shuang Li, Anna Ma, Deanna Needell, and **Jing Qin**, “[Sparse Randomized Kaczmarz for Support Recovery of Jointly Sparse Corrupted Multiple Measurement Vectors](#),” Gasparovic E., Domeniconi C. (eds) Research in Data Science. Association for Women in Mathematics Series, vol 17, 1-14 Springer (2019).
- Weihong Guo, **Jing Qin**, and Sibel Tari, “[Automatic prior shape selection for image segmentation](#),” Research in Shape Modeling, Chapter 1: 1-8, Springer (2015).

(B) *Journal Articles*

- Weihong Guo, Yifei Lou, **Jing Qin**, and Ming Yan, “[A Novel Regularization Based on the Error Function for Sparse Recovery](#),” Journal of Scientific Computing, 87(1): 1-22, 2021.
- Rachel Grotheer, Shuang Li, Anna Ma, Deanna Needell, and **Jing Qin**, “[Iterative Hard Thresholding for Low CP-rank Tensor Models](#),” Linear and Multilinear Algebra (to appear).
- **Jing Qin**, Shuang Li, Deanna Needell, Anna Ma, Rachel Grotheer, Chenxi Huang, and Natalie Durgin, “[Stochastic Greedy Algorithms for Multiple Measurement Vectors](#),” Inverse Problems and Imaging, 15(1): 79-107, 2021.
- **Jing Qin**, Harlin Lee, Jocelyn T. Chi, Lucas Drumetz, Jocelyn Chanussot, Yifei Lou, and Andrea L. Bertozzi, “[Blind Hyperspectral Unmixing Based on a Graph Total Variation Regularization](#),” IEEE Transactions on Geoscience and Remote Sensing, Sept, 2020.
- Mujibur Chowdhury, **Jing Qin**, and Yifei Lou, “[Non-blind and Blind Deconvolution under Poisson Noise using Fractional-order Total Variation](#),” Journal of Mathematical Imaging and Vision, 62(9), 1238-1255, 2020.
- Mujibur Chowdhury, Jun Zhang, **Jing Qin**, and Yifei Lou, “[Poisson Image Denoising Based on Fractional-Order Total Variation](#),” Inverse Problems and Imaging, Feb, 14(1): 77-96, 2020.
- Yuying Shi, Zhimei Huo, **Jing Qin**, and Yilin Li, “[Automatic prior shape selection for image edge detection with modified Mumford-Shah model](#),” Computers and Mathematics with Applications, 79(6): 1644-1660, 2020.
- Xin Wang, Shuai Xu, Zhen Ye, Chaozheng Zhou, and **Jing Qin**, “[Evolution Model Based on Prior Information for Narrow Joint Segmentation](#),” Journal of the Operations Research Society of China, 2019.
- Fang Li, and **Jing Qin**, “[A robust fuzzy local information and \$L_p\$ -norm distance based image segmentation method](#),” IET Image Processing, 11(4):217 (2017).
- Ying Li, **Jing Qin**, Yue-Loong Hsin, Stanley Osher, and Wentai Liu, “[s-SMOOTH: Sparsity and Smoothness Enhanced EEG Brain Tomography](#),” Frontiers in Neuroscience, 10:543 (2016).
- Fang Li, Stanley Osher, **Jing Qin**, and Ming Yan, “[A Multiphase Image Segmentation Based on Fuzzy Membership Functions and L1-norm Fidelity](#),” J. Sci. Comp. 69(1): 82-106 (2016).
- **Jing Qin**, Igor Yanovsky, and Wotao Yin, “[Efficient Simultaneous Image Deconvolution and Upsampling Algorithm for Low Resolution Microwave Sounder Data](#),” J. Appl. Remote Sens. 9(1), 095035 (2015).
- Jing Xu, Hui-Bin Chang, and **Jing Qin**, “[Domain Decomposition Method for Image Deblurring](#),” Journal of Computational and Applied Mathematics, 271: 401-414 (2014).
- Yaxin Peng, Shihui Ying, **Jing Qin**, and Tiejong Zeng, “[Trimmed strategy for affine registration of point sets](#),” J. Appl. Remote Sens, 7(1): 073468/1-10 (2013).

- Weihong Guo, **Jing Qin** and Wotao Yin, “A New Detail-preserving Regularization Scheme,” *SIAM J. Imaging Sci.* 7(2): 1309-1334 (2014).
- Weihong Guo, **Jing Qin**, “A Geometry Guided Image Denoising Scheme,” *Inverse Problems and Imaging*, 7(2): 499-521 (2013).

(C) *Peer-Reviewed Conference Papers*

- Jing Qin and Igor Yanovsky, “An Effective Super-Resolution Reconstruction Method for Geometrically Deformed Image Sequences,” *16th Specialist Meeting on Microwave Radiometry and Remote Sensing for the Environment (MicroRad)*, pp.1-4, 2020.
- Igor Yanovsky, Jing Qin, and Bjorn Lambrechtsen, “Spatio-Temporal Resolution Enhancement for Geostationary Microwave Data,” *16th Specialist Meeting on Microwave Radiometry and Remote Sensing for the Environment (MicroRad)*, 2020.
- Rachel Grotheer, Shuang Li, Anna Ma, Deanna Needell, and **Jing Qin**, “Stochastic Iterative Hard Thresholding for Low-Tucker-rank Tensor Recovery,” *Proc. Information Theory and Applications (ITA)*, pp.1-5, La Jolla CA, Feb. 2020.
- **Jing Qin** and Yifei Lou, “ L_{1-2} -regularized Logistic Regression” *53rd Asilomar Conference on Signals, Systems and Computers*, pp.779-783, 2019.
- Natalie Durgin, Rachel Grotheer, Chenxi Huang, Shuang Li, Anna Ma, Deanna Needell, and **Jing Qin**, “Jointly Sparse Signal Recovery with Prior Info,” *53rd Asilomar Conference on Signals, Systems and Computers*, pp.645-649, 2019.
- **Jing Qin**, Harlin Lee, Jocelyn Chi, Jocelyn Chanussot, Yifei Lou and Andrea Bertozzi, “Fast Blind Hyperspectral Unmixing based on Graph Laplacian,” *The 10th Workshop on Hyperspectral Image and Signal Processing*, pp.1-5, Amsterdam, Netherlands, Sept (2019).
- Natalie Durgin, Rachel Grotheer, Chenxi Huang, Shuang Li, Anna Ma, Deanna Needell, and **Jing Qin**, “Fast Hyperspectral Diffuse Optical Imaging Method with Joint Sparsity,” *41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC’ 19)*, pp.4758-4761, Berlin, Germany, August (2019).
- Feng Liu, Shouyi Wang, **Jing Qin**, Yifei Lou, and Jay Rosenberger, “Estimating Latent Brain Sources with Low-Rank Representation and Graph Regularization,” *Brain Informatics 2018 (BI’18)*, S. Wang et al. (Eds.), LNAI 11309, pp. 304-316 (2018). (Best Paper Award)
- **Jing Qin**, Yushan Wang, and Wentai Liu, “Current Design with Minimum Error in Transcranial Direct Current Stimulation,” *Brain Informatics 2018 (BI’18)*, S. Wang et al. (Eds.), LNAI 11309, pp. 52-62 (2018).
- **Jing Qin**, and Igor Yanovsky, “Robust Super-Resolution Image Reconstruction Method For Geometrically Deformed Remote Sensing Images,” *2018 IEEE International Geoscience and Remote Sensing Symposium (IGARSS 2018)*, pp.8054-8057, July, Valencia, Spain (2018).
- **Jing Qin**, Xiyu Yi, and Shimon Weiss, “A Novel Fluorescence Microscopy Image Deconvolution Approach,” *2018 IEEE International Symposium on Biomedical Imaging (ISBI 2018)*, pp.441-444, Washington, D.C., April (2018).
- **Jing Qin**, Feng Liu, Shouyi Wang, and Jay Rosenberger, “EEG Source Imaging Based on Spatial and Temporal Graph Structures,” *2017 International Conference on Image Processing Theory, Tools and Applications (IPTA 2017)*, Montreal, Canada, Nov (2017).
- Feng Liu, **Jing Qin**, Shouyi Wang, Jay Rosenberger, and Jianzhong Su, “Supervised EEG Source Imaging in Transformed Domain with Graph Regularization,” in *Zeng Y. et al. (eds) Brain Informatics. BI 2017. Lecture Notes in Computer Science*, vol 10654, pp.59-71, Springer, Cham (2017).

- **Jing Qin**, Tianyu Wu, Ying Li, Wotao Yin, Stanley Osher, and Wentai Liu, “Accelerated High-Resolution EEG Source Imaging,” *8th International IEEE EMBS Conference on Neural Engineering (NER’ 17)*, Shanghai, China, May (2017).
- Ying Li, **Jing Qin**, Stanley Osher, and Wentai Liu, “Graph Fractional-order Total Variation EEG Source Reconstruction,” *38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC’ 16)*, Orlando, Florida, August (2016).
- **Jing Qin**, Thomas Laurent, Kevin Bui, Ricardo V.R. Tan, Jasmine Dahilig, Justin Sunu, Shuyi Wang, Jared Rohe, and Andrea Bertozzi, “Detecting Plumes in LWIR Using Robust Nonnegative Matrix Factorization with Graph-based Initialization,” In *Proc. SPIE 9472, Algorithms and Technologies for Multispectral, Hyperspectral, and Ultraspectral Imagery XXI*, Volume 9472, pp.94720V/1-11, April (2015).
- **Jing Qin**, Weihong Guo, “An Efficient Compressive Sensing MR Image Reconstruction Scheme,” In *Biomedical Imaging (ISBI), 2013 IEEE 10th International Symposium on*, pp.306-309, April (2013).
- **Jing Qin**, Weihong Guo, “An automatic additive and multiplicative noise removal scheme with sharpness preservation,” In *Biomedical Imaging: From Nano to Macro, 2011 IEEE International Symposium on*, pp.1819-1822 (2011).
- Yaxing Peng, Fang Li, **Jing Qin**, Chaomin Shen, “Speckle removal of multi-polarisation SAR imagery using variational method,” In *SPIE Fifth International Symposium on Multispectral Image Processing and Pattern Recognition*, Volume 6790, pp.67903H/1-7 (2007).

(D) Technical Reports

- **Jing Qin**, Xiyu Yi, Shimon Weiss, and Stanley Osher, “Shearlet-TGV Based Fluorescence Microscopy Image Deconvolution,” UCLA CAM Report: 14-32 (2014).
- **Jing Qin**, Weihong Guo, “Two-stage Geometric Information Guided Compressive Imaging,” arXiv: 1409.7450v1 (2014).

(E) Theses

- **Jing Qin**, “Prior Information Guided Image Processing and Compressive Sensing,” (PhD Dissertation), Case Western Reserve University, 2013.
- **Jing Qin**, “Tensor Voting and Its Application,” (Master Thesis), China Master’s Theses Full-text Database (2008).

PATENTS

- Ying Li, Jing Qin, and Wentai Liu, “Brain Imaging System Using Total Variation EEG Source Reconstruction Method”, UC-2016-681.
- Ying Li, Wentai Liu, Jing Qin, Chih-Wei Chang, and Yi-Kai Lo, “Ultra-Dense Electrode-Based Brain Imaging System With High Spatial And Temporal Resolution”, UC-2016-151-1.

PRESENTATIONS

- Jing Qin, “Graph-Based EEG Source Localization”, SIAM Conference on Imaging Science, July 15, 2020.
- Jing Qin, “ L_{1-2} -Regularized Logistic Regression”, Asilomar Conference on Signals, Systems, and Computers at Pacific Grove, CA, Nov 3-6, 2019. (Poster)
- Jing Qin, “Graph Regularizations in EEG Source Localization”, The 2nd Annual Meeting of SIAM Texas-Louisiana Section at Southern Methodist University, Dalla, TX, Nov 1-3, 2019.
- Jing Qin, “Stochastic Greedy Algorithms for Multiple Measurement Vectors”, minisymposium at Conference on Computational Mathematics and Applications (CCMA), Oct 25-27, 2019, Las Vegas, Nevada.

- Jing Qin, “Stochastic Greedy Algorithms for Multiple Measurement Vectors”, International Conference of Union of Mathematical Imaging, May 10-12, 2019, Beijing, China.
- Jing Qin, “High-Resolution Fluorescence Microscopy Image Deconvolution” and “Graph Regularizations in EEG Source Localization”, AWM Research Symposium, April 6-7, Houston, 2019, Houston, TX.
- Jing Qin, “Stochastic Greedy Algorithms for Multiple Measurement Vectors”, The 4th International Conference on Big Data and Information Analytics, Dec 17-19, 2018, Houston, TX.
- Jing Qin, “Current Design with Minimum Error in Transcranial Direct Current Stimulation”, Brain Informatics 2018, Dec 7-9, 2018, Arlington, TX.
- Jing Qin, “High-Resolution Fluorescence Microscopy Image Deconvolution” and “EEG Source Imaging Based on Spatial and Temporal Graph Structures”, SIAM Conference on Imaging Science, June 5-8, 2018, Bologna, Italy.
- Jing Qin, “A Novel Fluorescence Microscopy Image Deconvolution Approach”, IEEE International Symposium on Biomedical Imaging (ISBI2018), April 4-7, 2018, Washington DC.
- Jing Qin, “EEG Source Imaging Based on Spatial and Temporal Graph Structures”, 2017 International Conference on Image Processing Theory, Tools and Applications (IPTA 2017), Nov 28-Dec 1, 2017, Montreal, Canada.
- Jing Qin, “Fast high-resolution EEG source imaging”, Annual Data Institute Conference, Oct. 15-17, 2017, San Francisco, CA.
- Jing Qin, “Graph Fractional-Order Total Variation EEG Source Reconstruction”, Colloquium of Applied Mathematics, East China Normal University and Shanghai University, June 23-24, 2017, Shanghai, China.
- Jing Qin, “Smoothness and Sparsity Enhanced Image Processing and Reconstruction”, International Workshop on Mathematical Image Processing, Aug. 2015, Tianjin, China.
- Jing Qin, “Fuzzy Image Segmentation Based on TV Regularization and L1-norm Fidelity”, The 8th International Congress on Industrial and Applied Mathematics (ICIAM15), Aug. 2015, Beijing, China.
- Jing Qin, “Detecting Plumes in LWIR Using Robust Nonnegative Matrix Factorization with Graph-based Initialization”, DTRA/NSF Workshop Algorithm for Threat Detection, July 2015, Washington D.C.
- Jing Qin, “Detecting Plumes in LWIR Using Robust Nonnegative Matrix Factorization with Graph-based Initialization”, SPIE Defense + Security, April 2015, Baltimore, MD.
- Jing Qin, “Detecting Plumes in LWIR Using Robust Nonnegative Matrix Factorization Method”, American women in Mathematics (AWM) Workshop 2015, University of Maryland, MD.
- Jing Qin, Weihong Guo, “Prior Information Guided Image Denoising and Reconstruction”, American Women in Mathematics (AWM) Workshop 2014, Baltimore, MD.
- Jing Qin, Weihong Guo, “Robust High Frequency Information Guided Compressive Sensing Reconstruction”, SIAM Conference on Imaging Science 2012 (IS12) CP1, Philadelphia, PA.
- Jing Qin, Weihong Guo, “VISUALIZATION IN MATHEMATICAL IMAGE DENOISING AND COMPRESSED SENSING RECONSTRUCTION”(poster), Data Visualization Symposium, May 11th 2012, CWRU, OH.
- Jing Qin, Weihong Guo, “An Automatic Additive and Multiplicative Noise Removal Scheme with Sharpness Preservation” (poster), Mathematical Methods for Images and Surfaces Conference, Aug. 12th 2011, Michigan State University, MI.
- Jing Qin, Weihong Guo, “A Segmentation Boosted Denoising Scheme for Images with Excessive and Inhomogeneous Noise”, SIAM Conference on Imaging Science 2010 (IS10) CP3, Chicago, IL.

AWARDS & HONORS

- ICERM travel award to participate “Women in Data Science and Mathematics Research Collaboration Workshop (WiSDM)”. July 29-Aug 2, 2019.
- American Institute of Mathematics Structured Quartet Research Ensembles (SQuaREs) travel support, 2019.
- MSRI travel support to attend the Summer Research for Women in Mathematics (SWiM) at MSRI, Berkeley, California, June 10-21, 2019.

- ICERM ravel support to attend the workshop “Computational Imaging” at ICERM, Brown University, Providence, March 17-22, 2019.
- Early Career Faculty Success Certificate, awarded by the MSU Center for Faculty Excellence.
- Certificate of Teaching Enhancement, awarded by the MSU Center for Faculty Excellence.
- Collaborate@ICERM proposal “Control and Analysis of Large-Scale Time-Varying Data”, ICERM at Brown University, August 6-10, 2018.
- Montana State University Letters & Science Research Enhancement Award (REA), 2018.
- ICERM travel award to participate “Women in Data Science and Mathematics Research Collaboration Workshop (WiSDM)”. July 17-21, 2017.
- SIAM ICIAM15 Travel Award (supported by NSF).
- 2012 CWRU ACES+ ADVANCE Opportunity Grant Award.
- Student Travel Award from SIAM Conference on Imaging Science 2012.
- NIH Travel Award for ISBI 2011.
- Travel Award from Department of Mathematics, CWRU, 2011.
- Travel Award from Department of Mathematics, CWRU, 2010.
- UCLA IPAM travel award (supported by NSF) to attend workshop “Mathematical Problems, Models and Methods in Biomedical Imaging”. Feb. 8-12, 2010.

SERVICE

2019-present

Guest editor of special issues at various journals:

- Inverse Problems and Imaging,
- Remote Sensing, An Open Access Journal from MDPI.

2013-present

Peer reviewer of various journals including Applied Mathematics and Computation, Applied Mathematical Modelling, Communications in Mathematical Sciences, Computers and Mathematics with Applications, IEEE Signal Processing Letters, IEEE Transactions on Circuits and Systems for Video Technology, IEEE Transactions on Image Processing, Inverse Problems and Imaging, International Journal of Biomedical Imaging, International Journal for Numerical Methods in Biomedical Engineering, Journal of Electrical Engineering, Journal of Imaging, Journal of Mathematical Imaging and Vision, Journal of Pattern Recognition Research, Journal of Scientific Computing, Journal of the Operations Research Society of China, Journal of Visual Communication and Image Representation, Methods and Protocols, Optimization, PLOS ONE, SIAM Journal on Imaging Sciences, SIAM Journal on Scientific Computing, Signal Processing, Transactions on Geoscience and Remote Sensing, The Scientific World Journal.

2018-present

Reviewer of various conferences:

- Thirty-fourth Conference on Neural Information Processing Systems (NeuIPS) 2020, Dec 6–12.
- Thirty-Fourth AAAI Conference on Artificial Intelligence 2020, Feb 7-12, New York, USA.
- Thirty-third Conference on Neural Information Processing Systems (NeuIPS) 2019, Dec 10–13, Vancouver, Canada.
- Thirty-Sixth International Conference on Machine Learning (ICML), Jun 10-15, 2019, Long Beach, CA, USA.

- Neural Information Processing Systems (NIPS) 2018, December 3–8, Montreal, Canada.
- 2016-present Organizer for various mini-symposiums and conferences:
- Organizer of the mini-symposium on “Graph-Based Approaches in Imaging Science”, SIAM Conference on Imaging Sciences, July 6-15, 2020.
 - Organizing Committee of the workshop, “Recent Developments on Mathematical/Statistical Approaches in Data Science,” June 1-2, 2019, Dallas, TX, USA. (NSF awarded proposal)
 - Special Session Organizer of “Women in Data Science,” AWM Research Symposium 2019, April 6-7, Houston, TX, USA.
 - Organizing Committee of the 11th International Conference on Brain Informatics, Dec 7-9, 2018, Arlington, TX, USA.
 - Organizer for the mini-symposium on “Graph Techniques for Image Processing”, SIAM Conference on Imaging Sciences, June 5-8, 2018, Bologna, Italy.
 - Organizer for the mini-symposium on “Nonconvex Regularization in Imaging: Theory, Algorithms and Applications”, SIAM Conference on Imaging Sciences, May 23-26, 2016, Albuquerque, NM.
 - Co-organizer of Minisymposium on “Variational image analysis and applications”, The 8th International Congress on Industrial and Applied Mathematics, 2015, Beijing, China.
- July 2015 Mentor of research experience for undergraduate program on *Image and Data Classification*, Department of Mathematics, UCLA
- July 2014 Mentor of research experience for undergraduate program on *Video tracking of airborne toxins*, Department of Mathematics, UCLA
- Feb. 2014-2016 Advisor of Mathematical Contest in Modeling, UCLA

TEACHING

University of Kentucky

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|-------------|---|
| Spring 2020 | Numerical Analysis (MA537). |
| Fall 2020 | Topic Class: Graph Algorithms and Their Applications (MA721). |
| Fall 2020 | Calculus I (MA 113). |
| Spring 2020 | Introduction to Numerical Methods (MA/CS 321). |
| Fall 2019 | Topic Class: Mathematical Imaging (MA 721). |
| Fall 2019 | Introduction to Numerical Methods (MA/CS 321). |

Montana State University

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| Spring 2019 | Numerical Solution of Differential Equations (Math 442). |
| Fall 2018 | Numerical Linear Algebra & Optimization (Math 441), Linear Algebra (Math 333). |
| Spring 2018 | Numerical Solution of Differential Equations (Math 442). |
| Fall 2017 | Introduction to Linear Algebra (Math 221), Topic class: Optimization (Math 591). |
| Spring 2017 | Software Applications in Mathematics (Math 386R), Numerical Solution of Differential Equations (Math 442). |
| Fall 2016 | Numerical Linear Algebra and Optimization (Math 441) |
| Summer 2016 | Introduction to Linear Algebra (Math 221) |

University of California, Los Angeles

Spring 2016	Applied Numerical Methods (Math 151B)
Winter 2016	Applied Numerical Methods (Math 151A)
Fall 2015	Optimization (Math 164)
Spring 2015	Applied Numerical Methods (MATH 151B)
Winter 2015	Applied Numerical Methods (Math 151A)
Fall 2014	Optimization (Math 164)
Summer 2014	Differential and Integral Calculus (Math 31A)
Spring 2014	Applied Numerical Methods (Math 151B)
Winter 2014	Applied Numerical Methods (Math 151A)
Fall 2013	Linear Algebra and Applications (Math 33A)

Case Western Reserve University

Fall 2011	Precalculus (MATH 120)
Fall 2012	Precalculus (MATH 120)
Aug. 2009 - May 2013	Teaching Assistant for Calculus (MATH 126), Introduction to Linear Algebra (MATH201), Elementary Differential Equations (MATH 224), Linear Algebra (MATH 307), and Introduction to Complex Analysis (MATH 324).

The University of Alabama

Aug. 2008 - May 2009	Teaching Assistant, Department of Mathematics
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East China Normal University

Sept. 2007 - May 2008	Teaching Assistant for Linear Algebra
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Last updated: April 29, 2021