

Duy Nguyen

CONTACT INFORMATION

401 Eagle Hts, Apt. F
Madison, WI 53705

Phone: 832-549-2426
E-mail: dnguyen@stat.wisc.edu
WWW: <http://pages.cs.wisc.edu/~dnguyen/>

EDUCATION

University of Wisconsin-Madison, Madison, Wisconsin USA

Ph.D. in Statistics, 2012-2017(expected)

- Advisor: Professor Sündüz Keleş
- Minor: Computer Science

Texas Christian University, Fort Worth, Texas USA

Master of Science, Mathematics, May 2012

- GPA:3.96/4.0
- PhD coursework in pure mathematics

Bachelor of Science, Mathematics (Honors), May 2010

- Phi Beta Kappa , Summa Cum Laude, Senior Scholar
- Overall GPA: 3.9/4.0, Major GPA: 4.0/4.0
- Thesis Topic: “Regression Analysis on Poker Models”
- Advisor: Professor George T. Gilbert

Bachelor of Music, Piano Performance, May 2010

RESEARCH INTERESTS (IN NO ORDER)

- Genomics, Statistical Analysis for Next Generation Sequencing Data, Bioinformatics, Statistical Methods, Experimental Designs, Topological Data Analysis, Algebraic Statistics
- Machine Learning
- Statistical Computing

MATHEMATICAL EXPERTISE

Real and Complex Analysis, Algebraic Topology, Algebraic Geometry, Functional Analysis, Matrix Analysis, Probability Theory, Mathematical Statistics

HONORS AND AWARDS

Traineeship funded by National Institutes of Health (2014/09-present)

Advanced Opportunities Fellowship (AOF), University of Wisconsin-Madison, 2012/09-09/2013 and 2016/09-2017/09

First Place in Graduate Research in Mathematics, TCU Student Research Symposium, Spring 2011

First Place in Undergraduate Research in Mathematics, TCU Student Research Symposium, Spring 2010

Phi Beta Kappa National Honor Society, Spring 2010

TCU Mathematics Department Senior Scholar class of 2010 (top graduating senior determined by the Mathematics Department Faculty), Spring 2010

Omicron Delta Kappa National Leadership Honor Society, 2009-present

Pi Kappa Lambda National Music Honor Society, 2009-present

Golden Key International Honor Society, 2008-present

SCHOLARSHIPS

Graduate Teaching Assistanship (stipend & tuition), TCU Department of Mathematics, 2010-2012

TCU Dean's Scholarship, TCU Faculty Music Scholarship, 2007-2010

Attended Viet Nam National University of Science-High School for Gifted students specialized in mathematics and Viet Nam National Conservatory of Music with full scholarships

Other Scholarships: Marietta Priest Memorial, Minnie K. Patton, Jones Berding Music Award, Datatel Foundation Scholar

WORK EXPERIENCE

Data Scientist at Utegration, Inc., Houston, Texas

August, 2015-present

Compete in Kaggle Data Competitions to build and improve company's business profile.

- Springleaf (08/2015-10/2015), Result: top 25%
- Rossmann Store Sales (10/2015-present)

Research Assistant

May, 2014-September 2014

Identifying differential enrichment in histone modification sites from ChIP-seq data

Advisor: Professor Sündüz Keleş

Department of Statistics, UW-Madison

Research Assistant

January, 2014-May, 2014

Sampling Properties of Sudoku-based Space-filling Designs

Advisor: Professor Peter Qian

Department of Statistics, UW-Madison

Teaching Assistant

January, 2014-May, 2014

Statistics 333: Applied Regression Analysis

Department of Statistics, UW-Madison

Teaching Assistant

August, 2013-December, 2013

Statistics 224: Introductory Statistics for Engineers

Department of Statistics, UW-Madison

Teaching Assistant

August, 2010- 2012

Math Clinic Duty, Grading (TCU Department of Mathematics).

Grader/Tutor

January, 2008- May, 2010

TCU Department of Mathematics, Student Support Services (TRIO program). Subjects graded: Discrete I and II, Business Calculus, Statistics, Calculus III

Tutor

January, 2006 - August, 2007

Tutor mathematics, physics, chemistry for Richland College students, Dallas, Texas

PAPERS

Xiaojin Zhu, Ara Vartanian, Manish Bansal, **Duy Nguyen**, Luke Brandl. *Stochastic Multiresolution Persistent Homology Kernel*. Association for the Advancement of Artificial Intelligence (AAAI '16, submitted)

Jun He, **Duy Nguyen**, Andrea C. Arpaci-Dusseau, Remzi H. Arpaci-Dusseau. *Reducing File System Tail Latencies with Chopper*. The 13th USENIX Conference on File and Storage Technologies (FAST '15) (Conference Rank 1, Acceptance rate $28/130 = 21.5\%$)

Lam Ho, Vu Dinh, Cuong Nguyen, **Duy Nguyen**, Binh Nguyen. *Learning From Non-i.i.d. Data: Fast Rate for the One-vs-All Multiclass Plug-in Classifier*. International Conference on Theory and Applications of Models of Computation (TAMC) 2015

D. Nguyen, Peter Qian. *Sampling Properties of Sudoku-based Space-filling Designs*. (in preparation)

D. Nguyen. *Regression Analysis on Poker Models*. (Undergraduate Thesis)

L. Buggy, A. Culiuc, K. McCall, **D. Nguyen**. Energy of Graphs and Matrices. (NSF-REU paper)

RESEARCH EXPERIENCE

Research on *Topological Kernels Using Persistent Homology*, 01/2015-present
Advisor: Professor Jerry Zhu (UW-Madison, Department of Computer Sciences)

Research on *Identifying differential enrichment in histone modification sites from ChIP-seq data*, 05/2014-present
Advisor: Professor Sündüz Keleş (UW-Madison, Department of Biostatistics and Medical Informatics)

Research on *Detecting QTLs: Sampling-based methods and Lasso Latent Class Regression in QTL Mapping*, 01/2014-05/2014
Advisor: Professor Christina Kendzioriski (UW-Madison, Department of Biostatistics)

Research on *Sampling Properties of Sudoku-based Space-filling Designs*, 09/2013-05/2014
Advisor: Professor Peter Z. G. Qian (UW-Madison, Department of Statistics)

Research on *Fast learning rates of plug-in classifiers* (Machine Learning), 06/2013-08/2014
Group members: Duy Nguyen, Lam Ho (UW-Madison), Vu Dinh (Purdue), Cuong Nguyen (NUS)

Research group organized by Prof. Moo Chung (UW-Madison), 09/2012-12/2012
Project: *Topological Data Analysis and Persistent Homology*

Research on Matrix Analysis, Spring 2011
Project: Continued research on *Energy of Graphs and Matrices*. I extended my knowledge of matrix analysis by studying *Matrix Analysis by Horn and Johnson* and reading previous published papers on the subject.
Advisor: Prof. Scott Nollet(TCU)

Senior Thesis Research (Departmental Honors), 08/2008-05/2010
Thesis: *Regression Analysis on Poker Models*
Advisor: Prof. George T. Gilbert(TCU)

Research Experiences for Undergraduates (NSF-REU) at Central Michigan University, Mount Pleasant, Michigan, 06/2009-09/2006
Project: *Energy of Graphs and Matrices*
Advisor: Prof. Sivaram K. Narayan (Central Michigan University)

TALKS AND CONFERENCES

The 13th USENIX Conference on File and Storage Technologies (FAST '15), *Reducing File System Tail Latencies with Chopper* (poster section), Santa Clara, CA, Feb 2015

Biostatistics seminar, *Identifying differential enrichment in histone modification sites from ChIP-seq data* (presenter), UW-Madison Department of Biostatistics, 12/12/2014

Algebraic Statistics 2014, *Sampling Properties of Sudoku-based Space-filling Designs* (poster presenter), Illinois Institute of Technology, 05/21/2014

Sampling Properties of Sudoku-based Space-filling Designs

Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing, KU Leuven, Belgium 04/06/2014 (Contributed talk)

Parabola Talk, *Probability and Music* (speaker), Texas Christian University, 09/29/2011

TCU Student Research Symposium, *Energy of Graphs and Matrices*(poster presenter), Texas Christian University, 04/16/2011

Conference of Texas Statisticians at Texas A&M University (poster presenter), March, 2011

Graduate Student Seminar Talk, *Law of Large Numbers and Central Limit Theorem* (presenter), Texas Christian University, 12/2010

TCU Student Research Symposium, *Regression Analysis on Poker Models*(poster presenter), Texas Christian University, 04/16/2010

Senior Thesis Talk, *Regression Analysis on Poker Models*, Texas Christian University, 04/12/2010

AMS-MAA Joint Mathematics Meetings (presenter and poster section), January 2010

Parabola Talk, *Energy of Graphs and Matrices* (presenter), Texas Christian University, 11/12/2009

Texas Mathematics Undergraduate Conference (TMUC) Talk, *Energy of Graphs and Matrices* (presenter), Sam Houston State University, 11/06/2009

SUMMR Conference, *Energy of Graphs and Matrices*(presenter), Central Michigan University, summer 2009

GRANTS

FAST'15 Student Travel Grant (\$300), 01/2015

UW-Madison Department of Biostatistics and Bioinformatics Travel Grant to the 13th USENIX Conference on File and Storage Technologies (FAST '15) (\$1000), 12/2014

NSF Travel Grant (\$2100) to MCQMC 2014, KU Leuven, Belgium, 12/2013

Vilas Welcome Award(\$600), 08/2012

Graduate Student Senate Travel Grant Award(\$315), 03/2011

Central Michigan University Travel Grant(\$200), 01/2010

Mathematical Association of America(MAA) Travel Grant(\$450), 01/2010

TCU Department of Mathematics Travel Grant for TMUC(\$150), 11/2009

TCU College of Science and Engineering Research Center Grant(\$2500), 04/2009

COMPUTER SKILLS

- Languages: R, Java, Python, C++, JavaScript
- Applications: \LaTeX , Matlab.

OTHER
INFORMATION

- Immigration Status: U.S. Permanent Resident
- My github account: <https://github.com/duydnnguyen/>
- My LinkedIn account: <https://www.linkedin.com/pub/duy-nguyen/b9/204/902>