Jeremy Kun

Curriculum Vitae

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Name Jeremy Kun

Thesis advisor Lev Reyzin

Research I am a theoretical computer scientist with broad interests, including complexity theory, summary graph theory and network science, learning theory, cryptography, combinatorics, and geometry. My research to date focuses on theoretical and applied graph theory.

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Education

2011 - Present University of Illinois at Chicago, Ph.D in Mathematics., Expected 2016.

2007 - 2011 California Polytechnic State University, B.S. in Mathematics, Minor in Computer

Science., Magna Cum Laude.

2011 **Budapest Semesters in Mathematics**, Graduated with honors.

Work Experience

2013 - 2014 Graduate Research Assistant, MIT Lincoln Laboratory.

Research on graph representation learning, data mining on large networks. Proved theorems, designed algorithms, ran experiments, and wrote technical research papers

2011 - 2013 Graduate Teaching Assistant, University of Illinois at Chicago.

Taught calculus and introductory computer science

2008 - 2009 **Junior Developer**, CreateSpace On-Demand Publishing.

Designed and developed a new accounting gateway infrastructure for a growing tech start-up, including writing thousands of lines of Java and SQL. Completed a technical writing training program

Contract Work

2014 - 2015 **Technical Reviewer**, *Doing Math with Python*, No Starch Press.

Publication date: 2015-05-25

2014 - Present **Technical Reviewer**, *Math Tweets*, No Starch Press.

Publication date TBD

2012 - Present Webmaster, QED Math Symposium, Chicago Public Schools.

Professional Programs

June 2014 **Network Science Week**, American Mathematical Society Mathematics Research Community.

Received mentoring, engaged in research to attack open problems, and developed new collaborations

Summer 2013 Ph.D Student Intern, MIT Lincoln Labs.

Research on machine learning in large graphs

Summer 2012 **Ph.D Student Intern**, Lawrence Livermore National Laboratory.

Data mining research in wind energy and plasma physics

Summer 2009 **Software Developer Intern**, *Amazon.com*.

Worked on the message-passing framework in a million-line service-oriented C++ architecture which regulated inventory in all of Amazon's warehouses

Programming

Portfolio Github Repository.

Top Language **Python**.

Competent Python, Java, C, C++, Haskell, Racket, HTML/CSS, Mathematica.

Languages

Familiar Javascript, Perl, Bash, PHP, SQL, R. Languages

IDEs Vim, Eclipse.

Version Control Git, Subversion.

Publications

- Fair Boosting: a Case Study, Benjamin Fish, Jeremy Kun, Adam Lelkes, International Conference on Machine Learning Workshop on Fairness, Accountability, and Transparency in Machine Learning.
- 2015 **Open Problem: Learning Quantum Circuits with Queries**, *Jeremy Kun, Lev Reyzin*, Conference on Learning Theory.
- A Boosting Approach to Learning Graph Representations, Rajmonda Caceres, Kevin Carter, Jeremy Kun, SIAM International Conference on Data Mining Workshop on Mining Networks and Graphs.
- 2014 On Coloring Resilient Graphs, Jeremy Kun, Lev Reyzin, Mathematical Foundations of Computer Science.
- 2013 Anti-Coordination Games and Stable Graph Colorings, Jeremy Kun, Brian Powers, Lev Reyzin, Syposium on Algorithmic Game Theory.

Awards

- 2014 **Dean's Scholar Award**, To provide the most distinguished, advanced-level graduate students with a period of time dedicated solely to the completion of their programs, Granted by University of Illinois at Chicago.

 Monetary value of \$25,000
- 2011 Charles J. Hanks Excellence in Mathematics Award, Demonstrated excellence and outstanding ability, Granted by California Polytechnic State University.
- 2010 **Robert P. Balles Mathematics Award**, *Highest GPA in mathematics coursework after three years*, Granted by California Polytechnic State University.
- 2007 Eagle Scout Award, Troop 234 of Moraga, CA, Granted by Boy Scouts of America.
- 2009 **3rd Place in a Collegiate Regional Programming Contest**, *Three-person team programming tasks*, Granted by Association for Computing Machinery.

Other

Blog Math Intersect Programming, In-depth presentation of technical topics, with full implementations in code. As of February 2015: 202 published posts, 2000 word average post length, 2 million page views since June 2011.