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EDUCATION **University of California, Berkeley**, Berkeley, CA
Ph.D. Candidate, Mathematics.
Dissertation: “Betti tables and groups of units”
Advisor: David Eisenbud.

Purdue University, West Lafayette, IN
B.S., Mathematics Honors, 2012.

RESEARCH
INTERESTS I am interested in commutative algebra, as well as computational aspects of algebraic geometry and combinatorics.

PUBLICATIONS **Graded-irreducible modules are irreducible.**
(with Y. Kim) *Comm. Algebra* **45** (2017), no. 5, pp. 1907–1913.

PREPRINTS **Flat maps to and from Noetherian rings.**
<https://arxiv.org/abs/1711.04958>.

Infinite prime avoidance.
<https://arxiv.org/abs/1710.05496>.

Surjections of unit groups and semi-inverses.
<https://arxiv.org/abs/1710.05492>.

Mono: an algebraic study of torus closures.
<https://arxiv.org/abs/1710.04614>.

Closed points on schemes.
<https://arxiv.org/abs/1708.06494>.

Numerical Implicitization for Macaulay2.
(with J. Kileel) <https://arxiv.org/abs/1610.03034>.
to appear in J. Softw. Alg. Geom.

Invertible sums of matrices.
<https://arxiv.org/abs/1603.06696>.

Matroids: a Macaulay2 package.
<https://arxiv.org/abs/1511.04618>.
to appear in J. Softw. Alg. Geom.

GRANTS **Macaulay2 development grant**
 Summer 2017, Summer 2015

Research assistantship
 Fall 2016, Fall 2015, Spring 2015

INVITED TALKS Algebra Seminar, U. Arkansas: October 2017.
 Commutative Algebra Seminar, Purdue U.: October 2017.
 AMS Special Session on Commutative Algebra, U. North Texas: September 2017.
 Algebra Seminar, Georgia Tech: September 2016.
 AMS Special Session on Commutative Algebra, U. Utah: April 2016.
 Algebra Seminar, UC Riverside: October 2015.
 Commutative Algebra Seminar, UC Berkeley: October 2014.
 Commutative Algebra Seminar, UC Berkeley: December 2013.
 Commutative Algebra Seminar, UC Berkeley: May 2013.
 Visiting Graduate Student Algebra Seminar, MSRI: December 2012.

SELECTED Structures on Free Resolutions, Texas Tech U.: October 2017.
 CONFERENCES KUMUNU, Kansas U.: October 2017.
 CA+, U. Minnesota: September 2017.
 M2 Workshop, UC Berkeley: July 2017.
 A View towards Algebraic Geometry, Martha's Vineyard: May 2017.
 Coworker for Leibniz fellow, Oberwolfach, Germany: March 2017.
 Conference in honor of Craig Huneke, U. Michigan: July 2016.
 Midwest Commutative Algebra, U. Notre Dame, May 2016.
 M2 Workshop, U. Utah: May 2016.
 CA+, U. Minnesota: April 2016.
 Midwest Commutative Algebra, Purdue U.: August 2015.
 Singular Landscapes, Aussois, France: June 2015.

TEACHING **University of California, Berkeley**, GSI (graduate student instructor)
 Groups, Rings, and Fields (graduate course), Fall 2017
 Introduction to Abstract Algebra, Fall 2017
 Introduction to Abstract Algebra, Spring 2017
 Linear algebra & differential equations, Spring 2016
 Linear algebra & differential equations, Fall 2014
 Calculus I, Spring 2014
 Multivariable calculus, Fall 2013
 Calculus II, Spring 2013
 Calculus I, Fall 2012

University of California, Berkeley, Course instructor
 Calculus II, Summer 2014
 Analytic Geometry and Calculus II, Summer 2013

Purdue University, TA
 Ordinary differential equations, Fall 2010
 Ordinary differential equations, Spring 2010