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School address:
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Education

Massachusetts Institute of Technology: Pursuing S.B. in mathematics, GPA 5.0/5 2011-2015
Lehigh University: Took math courses while in high school 2008-2011
Liberty High School: Graduated 1st in class of 621 2007-2011

Work Experience

Khan Academy: Software development intern, worked on site infrastructure and performance 2014

Extracurricular Activities & Leadership

MIT Educational Studies Program: Organized programs for middle and high school students 2011-present

- Chair of ESP for 2013; led the organization, advised program directors and make sure important tasks happened, organized discussions about policy, and worked with MIT offices
- Directed Splash 2012, a weekend program for 3000 middle and high school students; organized teachers, students, and volunteers, made policy and logistical decisions, and led the team of around 40 administrators for the biggest Splash to date
- Directed Spark 2014, a weekend program for 1000 middle school students
- Directed Spring HSSP 2012, an 8-week program for 300-400 students
- Taught classes on math, physics, programming, and origami for several programs

Association of Student Activities: President of the MIT Association of Student Activities 2014

- Worked with students and MIT administrators to oversee and advocate for MIT's 500 student groups.

Committee on Curricula: Student representative to MIT Committee on Curricula 2012-present

Alpha Phi Omega: Brother of Alpha Chi chapter of Alpha Phi Omega, a national co-ed service fraternity; organized publicity for Ugliest Manifestation on Campus charity fundraiser 2011-present

Mystery Hunt: Member of the Mystery Hunt writing teams for the 2013 and 2015 hunts 2012-present

MIT Integration Bee: Finalist in 2012, 2013, and 2014

Research

"Determining the Structure of Length- k Steenrod Operations as $A(r)$ -Modules", ongoing research in algebraic topology with Prof. Mark Behrens at MIT 2013-2014

- Presented poster at Joint Math Meetings 2014

"Diameters of Groups Generated by Transposition Trees", paper in combinatorics, researched at the University of Minnesota Duluth Research Experience for Undergraduates 2012

- Submitted to *Discrete Applied Mathematics*
- Presented in AMS Session "Graph Theory II" at Joint Math Meetings 2013

"Entries of Random Matrices", paper in pure mathematics, mentored by Gregory Minton at the Research Science Institute 2010

- US Finalist and Honorable Mention in S.-T. Yau High School Mathematics Awards 2010
- Semifinalist in Intel Science Talent Search 2011 and Siemens Competition 2010

"On Conjugacies of the $3x + 1$ Map Induced by Continuous Endomorphisms of the Shift Dynamical System", paper in pure math with Keenan Monks, mentored by Kenneth G. Monks 2009

- Published in *Discrete Mathematics* 310 (2010)

Computer Skills & Projects

- \LaTeX , Python (including Django and Sage), Linux/Bash, HTML/CSS/JavaScript, Scheme, and Haskell
- Major projects include the Educational Studies Program website, a Django application used by ESP programs across the country, and zScore, a small sleep tracking application

Interests & Hobbies

- Piano, origami (especially modular), board games, hiking