

Zev Chonoles

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Education

Ph.D. in Mathematics , The University of Chicago, Chicago, IL NSF Graduate Research Fellowship (80 awarded in mathematics nationwide in 2012)	expected 2018/06
M.S. in Mathematics , The University of Chicago, Chicago, IL	2015/06
Sc.B. in Mathematics with honors , Brown University, Providence, RI	2012/05

Professional Experience

Graduate student Performed novel computations of $RO(G)$ -graded equivariant cohomology Gave expository seminar talks on several topics in algebraic topology	2012/10 – present
Instructor for Linear Algebra, Calculus 1, and Calculus 2 courses Planned all lectures, created all homework assignments and exams, led weekly office hours	2015/09 – present
Counselor at the Boston University PROMYS program Guided high school students in discovering rigorous mathematics	2012/07 – 2012/08 2011/07 – 2011/08

Projects

Math department webmaster (math.uchicago.edu) Completely redesigned both front-end and back-end of the department website Planned out and created XML database of department members and seminars, making information presented on the website consistent and easily updated Fully automated weekly notification emails with Google Calendar Python API, saving ~2 hours/week of collecting event information and manual formatting Wrote guide to help department members set up their individual webpages, making a community resource and avoiding the lower impact work of giving ad hoc explanations to different individuals	2015/09 – present
Chaos Clock (chaosclock.org) Clock, displayed in binary, seeds a cellular automaton to make chaotically changing images Implemented using JavaScript	2018/03
TechTeam project for Hourvoice (hourvoice.com) Wrote a simple API to return collated data about hourly-paid jobs in Chicago Coordinated with front-end team members consuming the API, and with web-scraping team members providing the data to be put into the database Implemented using PHP and PostgreSQL	2017/09 – 2018/02
Prime Chimes (zevchonoles.org/projects/prime-chimes) Audio, visual, and textual depiction of how prime numbers factor in other number systems Number system can be specified by the user Implemented using PHP, JavaScript, and SageMath (a math-focused extension of Python)	2015/03

Publications

Arithmetic Properties of Generalized Rikuna Polynomials, joint with John Cullinan, Hannah Hausman, Allison Pacelli, Sean Pegado, and Fan Wei. *Pub. Math. Besançon, Algèbre et Théorie des Nombres 2014/1*, pp.19-33 (2014)

Technical Skills

Programming Languages

Familiar with Python, JavaScript, PHP, Bash, LaTeX

Systems

Built several Linux and Windows machines for personal use

Mathematics

Fluent with problem solving via abstraction, identifying extremal cases and manageable subproblems
Experienced with relevant subject areas such as linear algebra and functional analysis

Human Languages

English (native), Portuguese (intermediate)