Andrew B. Maurer

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Contact Info

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Summary

Motivated and independent mathematician with broad interests in technical fields looking for a ***Summer 2017 internship*** *involving data, statistical inference, and communication.*

• *Mathematical research experience.* Participated in mathematical research since summer 2012. Strong programming and technical skills.

• *Degrees.* Mathematics BS, computer science minor (2014). Ph.D. in mathematics (expected 2019). Coursework toward statistics MS (started 2017).

•*Teaching.* Many semesters as primary TA and lecturer for fundamental math courses. Developed ability to communicate technical concepts clearly.

Education

University of Georgia — Athens, Georgia

Mathematics, Ph.D Candidate. — *Expected 2019*

Thesis title: Finite Generation of Relative Cohomology for Lie Superalgebras.
Advisor: Daniel K. Nakano.

Statistics, MS. — *Expected 2019*

Coursework in nonparametric analysis and regression analysis. Programming in R and Python.

University of Massachusetts — Amherst, Massachusetts

Mathematics, Bachelor of Science. Computer Science, Minor. — *2014*

Senior Project: Computational and theoretical study of Hasse-Witt invariants of Jacobi polynomials.
Advisor: Farshid Hajir.

Skills

- **Programming:** *General Programming:* Python, Java. *Mathematical Programming:* Sage, GP/Pari. *Statistical Programming:* R, SciPy stack.
- **Software:** *Operating Systems:* GNU/Linux, Windows, Mac OS. *Scripting:* Bash. *Version control:* Git. *Document preparation:* LaTeX, org-mode, HTML, markdown.
- **Mathematics:** Linear algebra, calculus, analysis, algorithms, formal language theory, data structures, statistical regression, nonparametric data analysis, machine learning.
- **General:** Public speaking, mathematics education, college teaching, workshop facilitation.

Experience

- **Research:** Extensive research in algebra and representation theory. REU in Summer 2012 on asymptotic problems in coding theory, graph theory, and number theory. Senior project on inverse Galois theory. Independent project on tropical Grassmannians and tropical GIT.
- **Primary organizer:** President of our *Chapter of the American Mathematical Society* (2015 – present), principal organizer of *P.E.N.U.L.T.I.M.A.T.E.* seminar (2017 – present).
- **Teaching:** *Instructor of record:* Pre-Calculus, Upward Bound SAT Math. *Teaching Assistant:* Linear algebra, Introduction to proofs, Differential calclulus, Integral calculus, Foundations of geometry, Abstract algebra.
- **Logistic Assistance:** Tuesday algebraic geometry seminar (2014), Graduate student visitation day (2015, 2016), Summer workshop in Algebraic Geometry (2016), Topological Aspects of Algebra and Arithmetic Geometry (2016).
- **Presentations:** Many presentations on mathematical disciplines such as cryptography, coding theory, theory of computation, support varieties for Lie superalgebras, and geometric complexity theory. Professional website building in Wordpress.