

Curriculum Vitae

Bryan R. Gillespie

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EDUCATION

2006 – Present **The Pennsylvania State University** **University Park, PA**
Bachelor of Science in Mathematics
Bachelor of Science in Computer Science
Schreyer Honors College
Expected Graduation Date: December 2010
GPA: 3.97 / 4.00

COURSEWORK

Analysis

- * Calculus (4 Semesters)
- * Real Analysis (3 Semesters)
- * Complex Analysis (2 Semesters)
- * Functional Analysis
- * Probability Theory
- * Mathematical Statistics
- * Analytic Number Theory
- * Point-Set Topology

Algebra

- * Group and Ring Theory (2 Semesters)
- * Linear Algebra (2 Semesters)

Other Topics

- * Mathematical Logic
- * Discrete Mathematics
- * Combinatorics (2 Semesters)
- * Theory of Surfaces
- * Hyperbolic Geometry
- * Uncomputability Theory

RESEARCH AND INDEPENDENT STUDY

- * *Undergraduate Thesis, advised by Dr. Robert Vaughan, 2010*
Extending a class of matrices called Redheffer matrices to arbitrary multiplicative functions, and exploring the general behavior exhibited by their characteristic functions.
- * *University of Georgia Mathematics REU, Summer 2010*
Explored topics in arithmetic combinatorics related to the theme of “Structure and Randomness”. Applied techniques in elementary combinatorics, Fourier analysis, and probability theory.
- * *Independent Research, Spring 2010*
Considered the properties of a class of power series which naturally extends the exponential and trigonometric functions.
- * *Pennsylvania State University Mathematics REU, Summer 2008*
Studied questions related to the group law of elliptic curves over the real numbers.
- * *Independent Study, Summer 2008*
Studied elementary number theory using Ireland and Rosen’s text, “A Classical Introduction to Modern Number Theory”.
- * *Pennsylvania State University Mathematics REU, Summer 2007*
Studied the properties of a degenerate dynamical billiards system of infinite topological entropy.

EMPLOYMENT

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| Fall, 2008 | PSU Know How | State College, PA |
| <i>Private Tutor</i> | | |
| * Helped Penn State students to understand material from undergraduate mathematics courses | | |
| * Managed flexible working hours to fit clients' schedules | | |
| Spring, 2008 | The Pennsylvania State University | University Park, PA |
| <i>Grading Assistant</i> | | |
| * Evaluated the correctness of mathematical proofs written by Penn State students | | |
| * Provided constructive written feedback to students | | |

ACTIVITIES AND HONORS

- * Participant, University of Georgia Mathematics REU, Summer 2010
- * Recipient, Leonhard Euler Memorial Scholarship, Spring 2010
- * Member, Phi Beta Kappa Honors Society, 2010
- * Participant, Budapest Semesters in Mathematics, Spring 2009
- * Participant, Pennsylvania State University MASS Program, Fall 2007
- * Recipient, Mathematics Advanced Study Semesters Performance Award, 2007
- * Pennsylvania State University Mathematics REU, Summers 2007 – 2008
- * Participant, Ohio State University Young Mathematicians Conference, August 2007
- * Recipient, Schreyer Academic Excellence Scholarship and Dean's List, 2006 – Present