

Jason Karl Davis

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EDUCATION

Georgetown University, Washington, District of Columbia M.S. Mathematics and Statistics, (Expected) 2011

Brown University, Providence, Rhode Island Sc.B. Mathematics and A.B. Education Studies, 2008

Maine School of Science and Mathematics, Limestone, Maine H.S. diploma, 2004

SKILLS

- 12 years experience in web design and computer programming
- 3 years experience in mathematical computing (Matlab, Mathematica, Stata)
- Proficiency in office productivity software and computer operation and maintenance (Windows, MacOS X, *NIX)
- Proficiency in American Sign Language (1½ years of study)

EXPERIENCE

Assistant Program Manager, Air Force Office of Scientific Research; Arlington, VA 2008-present

I assist in the administration of portfolios of basic research. This includes a wide variety of responsibilities, including: organizing conferences and attendees, interfacing with the contracting teams, basic administration, and familiarity with and a basic understanding of state-of-the-art science and mathematics.

Instructor, Maine School of Science and Mathematics Summer Camps; Limestone, Maine 2003-2007

I taught students ranging from grades 4 to 9 a wide variety of topics, including combinatorial game theory, digital video editing, chaos theory, robotics, philosophy of mathematics, and web design. It was my job to inspire these students to take an interest in mathematics and science and encourage them to pursue careers in those fields.

Contractor, Digication; Providence, Rhode Island 2006-2007

Digication is a company that writes software for e-portfolios and a learning management solution. I worked as a freelance contractor, implementing their vision on the client-side. This includes user-interactivity (with Javascript) and web accessibility (with valid markup, CSS, and informed design decisions).

Tutor, Brown University; Providence, Rhode Island 2004-2008

I tutored for several organizations on campus, working with students in group and individual settings. I tutored single and multivariate calculus, linear algebra, differential equations, and statistics. In 2007 I was asked to take over as head math tutor for the Academic Support Center, making me responsible for organizing larger study groups and engaging in skill-building exercises for other math tutors.

Teacher's Assistant, Brown University; Providence, Rhode Island 2006-2008

I was a teacher's assistant for Education 101: The Craft of Teaching for two semesters and Computer Science 22: Introduction to Discrete Structures and Probability for one. For both classes, I was responsible for correcting papers and homework assignments and holding office hours for the students.

Volunteer, Rhode Island Training School; Providence, Rhode Island 2007

I worked with incarcerated minors at Rhode Island's juvenile detention facility, meeting with them once a week to help them prepare for the math portion of the GED test.

Volunteer, The Met Center; Providence, Rhode Island 2006

I was tasked with catching a class of 12th graders up to grade-level in mathematics. I had 8 students and met twice weekly with them, teaching from lesson plans that I specifically created for their individual needs.

RESEARCH

Topics in Continued Fractions, Brown University Math Department, 2006-2007

Under the supervision of Professor Miller in the Math Department, I investigated the distribution of digits of the continued fraction representations of algebraic numbers. I used both statistical and analytical methods of determining if the Gauss-Kuzmin theorem also describes this set.

Income of GED Test-Takers, Brown University Education Department, 2007-2008

In conjunction with Professor Tyler of the Education Department, I was given access to sensitive data for GED test-takers in Rhode Island and tasked with estimating the financial worth of obtaining the certificate.

White-Opaque Phenotype Switching in *C. albicans*, Brown University Applied Math Department, 2008

I worked with Professor Sindi of the Applied Math Department and Professor Neretti of the Biology Department in analyzing a mathematical model of the protein expression of the *C. albicans* fungus.

INTERESTS

- Nonlinear dynamics
- Stochastic processes
- Scientific computing
- Computational biology
- Juggling