Sean K. Simmons

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Education:

Massachusetts Institute of Technology September 2011- August 2015, PhD in Applied Mathematics, working on problems in Computational Biology, GPA: 4.9/5.0
Relevant Classes: Machine Learning (listener) · Combinatorial Optimization · Introduction to Computational Molecular Biology

The University Of Texas at Austin September 2007- May 2011, BS in Mathematics graduating with highest honors (Deans Scholars Honors Program), GPA: 3.98/4.0
Relevant Classes: Algorithms and Data Structures, Honors · Algorithms, Honors · Computer Organization and Programming

Research and Employment Experience:

Spring 2013-Present: *Work in the Berger Lab at MIT*
Responsibilities: Conduct research in various areas of computational biology, including genomic privacy and developing machine learning tools for the analysis of RNA-seq data. This work involves the analysis of large biological datasets.

Spring 2015: *Graduate Teaching Assistant for 'Topics in Computational Biology'*
Responsibilities: Organized speakers for weekly bioinformatics seminars. Helped students prepare classroom presentations and led discussions.

Summer 2009, 2010 and 2011: *Mathematical REU in Algorithmic Combinatorics on Partial Words, UNCG*
Responsibilities: Studied combinatorial properties of words. Involved programming in Java and Python. Led to numerous publications. During 2011 served as a graduate assistant, including mentoring undergraduate researchers, as well as other leadership responsibilities.

Fall 2010: *Undergraduate Teaching Assistant at the University of Texas*
Responsibilities: Led weekly TA sessions with a small group of students, grading, creating class assignments, helping students with simple experiments in lab, and other duties.

Summer 2008: *Mathematical REU in Cryptography, Northern Kentucky University*
Responsibilities: Used computational methods to investigate applications of algebraic techniques to cryptography related problems.

Awards and Accomplishments:

NSF Graduate Research Fellowship (2011)**,** College of Natural Science Deans Honored Graduate at the University of Texas (2011), Greg Mellen Memorial Cryptology Scholarship Prize (2009)**,** Goldwater Scholarship (2009)

Programming Experience:

Experience programming in Python and Java. Also have some experience with C++, Matlab and R. Fluent in LaTeX.

Leadership and Extracurricular Experiences:

- Serve as a graduate student peer mediator through the REFS program. Involved taking conflict resolution training.
- Have been responsible for organizing the Berger labs weekly lab meetings for the last year and a half. Involves organizing speakers (some from in the lab, some from outside the lab) as well as managing some administrative details.
- Participate in the MIT Science Policy Initiative.

Publications:

Available upon request. Also available online.