

Education

PhD Candidate, Computer Science
Boston University, Boston, MA
Cumulative GPA: 3.86 / 4.0

Bachelor of Science in Mathematics, May 2015
Case Western Reserve University, Cleveland, Ohio
Cumulative GPA: 3.36 / 4.0

Research Experience

Graduate Research Assistant, advised by Adam Smith September 2017 – Present
Computer Science Department, Boston University

- Research focused on a theoretical understanding of learning and privacy

Computational Biological Modeling December 2014 – May 2015
Mathematics Department, CWRU

- Modeled seasonal snail populations for disease prediction, advised by David Gurarie
- Results led to Senior Capstone Thesis Presentation

Theoretical Modeling for Applied Physics May 2012 – May 2013
Physics Department, CWRU

- Modeled polymers in electric fields for use in efficient capacitors, advised by Philip Taylor

Professional Experience

Junior Associate June 2015 – May 2016
Mu Sigma; Bangalore, India, and Wallingford, Connecticut

- Coordinated and executed data analysis with team of eight offshore associates
- Used statistics and machine learning techniques on large-scale marketing problems

Teaching Experience

Boston University Teaching Fellow
CS 537 – Randomness in Computing, Spring 2020, with Sofya Raskhodnikova
CS 330 – Introduction to Algorithms, Fall 2019, with Adam Smith
CS 542 – Machine Learning, Summer I 2019, with Peter Chin
CS 112 – Introduction to Computer Science II, Fall 2018, with Christine Papadakis-Kanaris
CS 542 – Machine Learning, Spring 2018, with Peter Chin
GRE and SAT Instructor, Kaplan Test Prep

Key Graduate Coursework

- CS 537 – Randomness in Computing
- CS 591 – Adaptive Data Analysis
- CS 511 – Formal Methods I
- MA 717 – Functional Analysis
- MA 882 – Large-Scale Bayesian Methods
- CS 640 – Artificial Intelligence
- CS 591 – Introduction to Natural Language Processing
- CS 535 - Complexity

Publications

- Jensen, Louis, **Gavin Brown**, Xiao Wang, Jacob Harer, and Sang Chin. “Deep Learning for Minimal-context Block Tracking through Side-channel Analysis.” *ICASSP 2019*. IEEE, 2019.

- Wang, Xiao, Quan Zhou, Jacob Harer, **Gavin Brown**, Shangran Qiu, Zhi Dou, John Wang, Alan Hinton, Carlos A. Gonzalez, and Peter Chin. "Deep learning-based classification and anomaly detection of side-channel signals." *Cyber Sensing 2018*. Vol. 10630. International Society for Optics and Photonics, 2018.
- Chin, Sang Peter, Jonathan Cohen, Alison Albin, Mykola Hayvanovych, Elizabeth Reilly, **Gavin Brown**, and Jacob Harer. "A Mathematical Analysis of Network Controllability Through Driver Nodes." *IEEE Transactions on Computational Social Systems* 4, no. 2 (2017): 40-51.
- Miao, Jiayuan, **Gavin Brown**, and Philip Taylor. "Theoretically guided design of efficient polymer dielectrics." *Journal of Applied Physics* 115.9 (2014): [094104](#).

Poster Presentations

- Zhang, Jie, Jon Newman, **Gavin Brown**, Edward Boyden, Peter Chin, and Matthew Wilson. "Integrated compressive sensing microscope for high speed functional biological imaging." *NIH BRAIN Initiative Investigators Meeting*, April 2018. Bethesda, Maryland.