Samuel Epstein

Education

Boston University
PhD in Computer Science, Spring 2013
Master of Arts in Computer Science, Spring 2008
3.99 GPA

Georgia Institute of Technology
Bachelor of Science in Computer Science, Spring 2003
Graduation with distinction and highest honors
3.73 GPA

Hong Kong University of Science and Technology
Hong Kong, Study Abroad Program through Georgia Institute of Technology, Fall 2001

Teaching Experience

Boston University
Teaching Assistant

Introduction to Programming - 2013
Theory of Computation - 2011
Analysis of Algorithms - 2011
Computer Vision - 2008

Publications

S. Epstein. All Sampling Methods Produce Outliers. *IEEE Transactions on Information Theory*, Accepted, 2021.

This article contains a proof of the assertion that any natural set will always contain atypical members. It is known in the academic community as the ***Epstein-Levin*** theorem and it is a formal justification of Occam's Razor.

S. Epstein, K. Mattar, and I. Matta. Principles of Safe Policy Routing Dynamics. In *Network Protocols, 2009. ICNP 2009. 17th IEEE International Conference on*, pages 254 –263, 2009.

This article identified key invariant properties of the dynamics the Intradomain routing, i.e. BGP. ***Best-Paper finalist***.

S. Epstein and M. Betke. An Information Theoretic Representation of Agent Dynamics as Set Intersections. *Fourth Conference on Artificial General Intelligence*, Volume 6830 of *LNAI*, pages 72–81. 2011.
Winner of Solomonoff Student Prize

Employment

Google, 2014 - 2015
Cambridge, MA
Software Engineer

Worked on a high-level project applying machine learning techniques to the Android smartphone. This next generation software would enable the user to find and organize their personal information in a novel manner.

Boston University, 2013 - 2014
Postdoctoral Research Fellow
Programmable Smart Machines Lab

Leveraged pattern recognition experience to study the means in which a computer system can integrate learning into its core execution model. Applied a popular bio-informatics construct known as suffix-trees to the opcode level traces of an executing program and developed a rigorous theory of system diagnostics and causation.

IBM Corporation, Summer 2007
Raleigh, North Carolina
Extreme Blue Computer Science Intern

Elected to be in a group of 90 interns out of over 10,000 applicants. I was part of a four person team which developed a Common Policy Service using Java and WSDM Web Services. This Web Service functioned as a common integration point for system policies across IBM Tivoli products.

The MITRE Corporation, 2003-2006
Bedford, Massachusetts
Senior Software Systems Engineer

Developed a dynamic weather service prototype for Google Earth. Demonstrated technical leadership in the integration of Raytheon's weather system into the Joint Expeditionary Force Experiment. Recognized for excellence and received the *MITRE Prototyping All Star Team*, *Program Recognition Award* and a *MITRE Spot Award*.