

Benjamin Ezra Barenblat

2270 Northwest Savier Street
Portland, Oregon 97210-3910
<https://benjamin.barenblat.name/>

Massachusetts Institute of Technology
77 Massachusetts Avenue <http://web.mit.edu/>
Cambridge, Massachusetts 02139-4301 +1 617 253 1000

Education

Massachusetts Institute of Technology (class of 2013) Cambridge, Massachusetts
Attained S.B. in computer science and engineering; coursework included computer language engineering, algorithm and program design, discrete mathematics, computer architecture, and operating system engineering.

Work Experience

Galois (summer 2013 through spring 2014) *Researcher, Engineer*
Full-time technical position at Galois, a small research and development group focused on high-quality systems in mission-critical applications. Based in Portland, Oregon, Galois is known throughout the world for their expertise in applied cryptography, programming languages, and formal methods.
As *Researcher*, investigated methods to automatically verify security properties of cryptographic secret-sharing protocols; as *Engineer*, maintained compelling, public-facing demonstrations of same. Also designed and implemented the majority of a metabenchmarking system allowing benchmarkers to construct and repeat performance assays while automatically collating data received therefrom.

Jane Street (summer 2012) *Technology Intern*
Mentored by multiple full-time developers in paid software development position at Jane Street, a small proprietary trading firm based in New York City. Jane Street holds a prominent position as the world's largest industrial user of the OCaml functional programming language and develops the Jane Street Core, a free and open source standard library for OCaml used by a number of projects around the world.
As *Technology Intern*, created, extended, tested, and documented multiple OCaml-based data visualization solutions targeted at Jane Street's other developers and trade support team. Solutions are now in use by full-time employees to interpret data from production-level systems, troubleshoot unexpected behavior, and minimize failures.

MIT CSAIL, Decentralized Information Group (DIG) (spring-summer 2011) *Undergraduate Researcher*
Worked under Mr Joe Pato, DIG visiting fellow, and Dr Lalana Kagal, group deputy director. The group, under principal investigators Professor Hal Abelson, Professor Gerry Sussman, and Sir Tim Berners-Lee, explores the development and implementation of the next generation of decentralized systems, as well as their integration with the Semantic Web.
As *Researcher*, explored provenance tracking throughout complex systems, implementing a provenance tracker within a social web data miner. Provenance tracking – maintaining a record of data flow through a system's components – has long been implemented only in the most critical systems; however, machine-readable provenance metadata allows intelligent agents to evaluate data validity in a variety of contexts.

Additional Information

Computer and Technology Interests

Proficient in Haskell, OCaml, C, and Scheme programming, with exposure to Coq, Agda, Isabelle/HOL, and Scala. Highly interested in functional programming and high-reliability system design; also explorative of security, hardware-software interfaces, and free software paradigms.

Fine Arts Interests

Deeply interested in typography and graphic design. Proficient with the \LaTeX document preparation system, used to design and typeset virtually all authored documents.