Jason Gross

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RESEARCH INTERESTS

Programming Languages, Formal Verification, Cryptography, Performance Engineering

EDUCATION

Massachusetts Institute of Technology

2013-2021

PhD in Computer Science

Cambridge, MA

Advisor: Adam Chlipala

Thesis: Performance Engineering of Proof-Based Software Systems at Scale SM Thesis: An Extensible Framework for Synthesizing Efficient, Verified Parsers

Massachusetts Institute of Technology

2009-2013

BS in Mathematics and Physics

Cambridge, MA

GPA: 4.6/5

EXPERIENCE

Internships

Google

June 2018–August 2018

Software Engineering Intern

Cambridge, MA

Worked with BoringSSL on integration of proven-correct low-level ECC primitives into Chrome

MIT
Teacher

Fall 2009-Present
Cambridge, MA

- Taught classes on L^AT_EX, philosophy, linear algebra, and quantum mechanics for MIT Educational Studies Program's Splash, Spark, and Summer HSSP (High School Studies Program)
- Teaching Assistant for 8.012 (Physics I) and 8.022 (Physics II) in Experimental Study Group

Microsoft Research

June 2014–August 2014

Intern

Cambridge, United Kingdom

• reated a language for specifying input/output behavior of x86 assembly programs; Verified the I/O behavior of a number of simple programs

PROGRAMMING LANGUAGES

- Proficient: Coq, Mathematica, git, Python, JavaScript, BASIC
- Working knowledge: C, C++, Agda, OCaml, Haskell, Scheme, HTML, CSS, Perl, Java
- Basic knowledge: Matlab, Lean, Idris, Ruby, Go, Ur/Web, x86 Assembly

TEACHING

- Instructor at Monsoon Math Camp: category theory, linear logic, Löb's theorem
- TA for 6.172 (Performance Engineering): Led recitations, analyzed and explained assembly output of gcc -03 to teach vectorization
- TA for 8.012 (Physics I) and 8.022 (Physics II) in Experimental Study Group

• Teacher at MIT ESP Programs: LATEX, philosophy, linear algebra, quantum mechanics

OTHER ACTIVITIES

• Canada/USA Mathcamp (Summers 2006–2009)