Jason Gross

github.com/JasonGross
people.csail.mit.edu/jgross

CONTACT
jgross@mit.edu
(631) 790-8962

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   Fall 2009–Present
Teacher   Cambridge, MA
- Taught classes on LaTeX, 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 -O3` 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)