

Education

- **Harvard University** Cambridge, MA
A.B. Summa Cum Laude in Computer Science and Mathematics, GPA 3.96 May 2013
 - Senior Thesis on *Type Classes for Substructural Types* with Greg Morrisett and Jesse Tov
 - Awards: Phi Beta Kappa, Detur Book Prize, John Harvard Scholar
 - Coursework includes topics in Programming Languages, Systems, and Algorithms

Experience

- **Programming Languages Research** Harvard CS Dept
Research Assistant, Herchel Smith Fellow 2012-2013
 - Designed a type system to track resources and state through substructural types
 - Implemented type checker and parser for the new language in Haskell
- **CS121: Introduction to Formal Systems and Computation** Harvard CS Dept
Teaching Fellow Fall 2011
 - Helped develop curriculum, led weekly sections, and graded for a sophomore/junior level class
- **Microsoft Corp.** Redmond, WA
Software Development Engineer Intern, Windows 8 Division Summer 2011
 - Worked with a team of 2 other interns to design, develop, and pitch a touch-based notes organizer written in HTML5/Javascript
 - Application selected for inclusion in the official Windows 8 Developer Preview
- **LLVM-MD Project** Harvard CS Dept
Research Assistant Spring 2011
 - Worked with Professor Morrisett's research group to verify compiler optimizations
 - Developed a new back-end in Haskell to certify programs by translating them into boolean formulas

Publications

- **RockSalt: Better, Faster, Stronger SFI for the x86.** Beijing, China
G. Morrisett, G. Tan, J. Tassarotti, J.B. Tristan, and E. Gan. June 2012
 - ACM Conference on Programming Language Design and Implementation (PLDI 2012)
 - Formalized semantics for Intel processor instructions and modeled a MIPS processor

Awards

- **ACM Programming Contest, Regional Finals** Rochester, NY
Second Place Team Fall 2010
- **Intel Science Talent Search** USA
Semifinalist (Mathematics) Spring 2009
- **International Physics Olympiad** Hanoi, Vietnam
Gold Medalist Summer 2008

Programming Experience

Proficient with Java, C, OCaml, and Haskell. Familiar with Javascript, Coq, and MIPS assembly.