

# BENJAMIN LEE GREENMAN

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## EDUCATION

### Cornell University

Master of Engineering, Computer Science, GPA 3.52

2013 – 2014

### Cornell University

Bachelor of Science, GPA 3.47

2010 – 2013

### Hudson Valley Community College

GPA 3.78

Phi Theta Kappa National Honor Society

2009 – 2010

## EXPERIENCE

### Research Assistant, Cornell University

Summer 2013 – Fall 2014

Ithaca, NY

(*Summer 2013 – Summer 2014*) Worked with Professor Ross Tate to determine the feasibility of a new construct for object-oriented languages. Analyzed the inheritance hierarchy of over 13 million of lines of Java code across 60 open source projects to analyze existing practice and assess the work needed to implement the redesign. Presented findings at PLDI '14.

(*Summer 2014 – Fall 2014*) Building on the previous work, designed a type system for adding conditional inheritance to object-oriented languages with generics. Overcame challenges of decidability and soundness to create a practical, language-independent formalism.

### Software Engineer, Rentenna Inc.

Summer 2012 – Winter 2013

New York, NY

Implemented REST-ful api for growing startup. Wrote an extensive library of HTML and XML crawlers. Designed caching abstraction to enrich local database with dynamic external resources. Published user-facing web page features and modules. Gained experience with unit-testing frameworks and a branching Git model.

### Teaching Assistant, Cornell University

Spring 2012 – Spring 2014

Ithaca, NY

Introduced undergraduate students to functional programming. Designed assignments and exam questions. Wrote a test harness in the OCaml language to automate grading. Interacted extensively with students in one-on-one and classroom settings. Helped manage a staff of approximately 20 teaching assistants.

## COURSEWORK

Operating Systems

Algorithm Design

Information Networks

Compilers

Programming Languages

Organizational Behavior

Functional Data Structures

Policy Analysis

Computer Organization

Abstract Algebra

Entrepreneurship

Object-Oriented Design

## QUALIFICATIONS

**Awards:** Cornell Teaching Award, 2014 & 2013

**Programming Languages:** Python, OCaml, SQL, Coffeescript, Sass, Java, Haskell

**Libraries and Tools:** Emacs, GIMP, Git, L<sup>A</sup>T<sub>E</sub>X, MongoDB, Scrappy, SQLAlchemy, XPath

**Other:** 35 video game world records, 3<sup>rd</sup> place Pennsylvania State Birling championship 2014