

# Louis Rassaby

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lrassaby.github.io

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## Education

**Tufts University** – Medford, MA

Bachelor of Science, Computer Science, Minor: Economics – December 2014

G.P.A. 3.94, *summa cum laude*, Dean's List 7/7 semesters, National Merit Scholar

## Education

**Primary languages:** Scala, C, C++, Java, Python, JavaScript, SQL

**Other languages:** C#, Haskell, ML, Scheme, OpenGL, GLSL, Processing, d3, MongoDB, Ext.js, Node.js, LaTeX

## Notable Projects

**Phantom Echoes:** Designed and built music adventure game, using landscapes and obstacles based on sampled melody and tempo from user-selected songs; winner of The Echo Nest's "Prize for Excellence" at Tufts Hack 2013

**Image manipulation:** Wrote and optimized image manipulation tool in C, including compression, rotation, etc.

**OpenGL:** Created multithreaded recursive ray tracer supporting a wide range of complex rendering techniques in C++; developed sophisticated animated particle system using GPU shaders

**Distributed hash table:** Created distributed hash table in C with strong partition tolerance and consistency

**Universal machine:** Built virtual 13-opcode universal machine in C and wrote RPN calculator in its language

## Experience

**Recombine** – New York, NY, *Software Engineer*

February 2015 – Present

- Building new logic for metrics, reporting, bioinformatics, and logistics
- Improving the stability of the API by assessing and solving crashes, profiling long-running operations, and solving memory leaks

**CUAHSI, Inc.** – Medford, MA, *Undergraduate Research Assistant*

September 2014 – December 2014

- Created mapping between two scientific ontologies using graph isomorphism and fuzzy matching

**Tufts University EECS Department** – Medford, MA, *Teaching Assistant*

September 2013 – December 2014

- Dedicated up to 20 hours weekly to explaining concepts and assignments to students
- Instructed students in groups and one-on-one to debug C, assembly code, C++, Scheme, and ML
- Evaluated and graded assignments and exams

**GE Intelligent Platforms** – Foxboro, MA, *EID Software Engineering Intern*

May – August 2014

- Designed, proposed, and implemented module for internationalization management (string translation, dates, times, etc.) and created Pig Latin language pack that updates as part of build process
- Ported Chrome-only web app to IE, solving one of the most significant customer-facing issues
- Isolated and resolved SQL deadlock errors that were causing intermittent errors for the client

**avast! Antivirus** – Prague, Czech Republic, *Software Engineering Intern*

June – August 2013

- Designed and implemented a suite of intelligent client crash management tools, including a dashboard to display data and analytics to prioritize bug fixes and integration with product management software
- Created secure virtual machine reservation service to reserve and load disk images onto virtual machines

## Activities & Interests

**Tufts Computer Science Exchange**, *Member*

September 2012 – December 2014

**Tufts Symphony Orchestra**, *Principal Cellist*

September 2011 – May 2012

- Led sectionals for the viola, cello, and bass sections of the orchestra

**Somerville and Medford Public Schools**, *Volunteer Orchestra Instructor*

September 2011 – May 2012

- Instructed 3<sup>rd</sup> to 12<sup>th</sup> grade string musicians weekly at Medford and Somerville public schools

**Language Skills:** Conversational Spanish