Louis Rassaby

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Education

Tufts University – Medford, MA
Bachelor of Science, Computer Science, Minor: Economics – December 2014
G.P.A. 3.93, *summa cum laude*, Dean's List 7/7 semesters, National Merit Scholar

Languages

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 endpoints and 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 3rd to 12th grade string musicians weekly at Medford and Somerville public schools

Language Skills: Conversational Spanish