# Rafael Lizarralde

Computer Science MS/PhD Student at University of Massachusetts Amherst

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#### **EXPERIENCE**

### **UMass Amherst,** Amherst, MA — Research Assistant

FEBRUARY 2016 - CURRENT

Developing collaboration and adaptive learning systems for the MathSpring online K-12 math tutoring system.

## **Cornell University,** Ithaca, NY — Research Assistant

JUNE 2011 - OCTOBER 2013

Worked on genetic engineering for Rapidapter project (plasmid-based targeted mutagenesis in E. coli), in Dr. John March's Metabolic and Signal Engineering Laboratory.

## **Sol Genomics Network**, Ithaca, NY— Programming Intern

JUNE 2009 - AUGUST 2009

Improved genomics analysis web tools, working with Perl and Debian.

#### **EDUCATION**

## **UMass Amherst,** Amherst, MA — Computer Science MS/PhD

SEPTEMBER 2015 - CURRENT

Favorite courses: Advanced Algorithms, Machine Learning, Probabilistic Graphical Models.

## **Cornell University,** Ithaca, NY — Biological Engineering B.Sc.

AUGUST 2010 - MAY 2013

Favorite courses: Algorithm Analysis, Computational Linguistics, Computer-Aided Engineering, Discrete Structures, Differential Equations, Uncertainty Analysis in Engineering.

### **PROJECTS**

## **Visual Vote Counter** — Entrepreneurs' Organization "Shark Swim" Event JUNE 2014

Wrote a Java program to count votes (cast with colored flags) in an auditorium, by analyzing pictures taken from the stage.

## **International Genetically Engineered Machines (iGEM)** — 3D Animator and Project Leader

FEBRUARY 2012 - OCTOBER 2013

Developed 3D animation for 2012 project presentation, recruited, restructured, and led team in 2013.

#### **SKILLS**

Algorithms

Machine learning

Java, Lua, Python, Perl

Copy editing

#### **AWARDS**

Best Human Practices Advance (iGEM 2013)

Top 16 (iGEM 2012)

Best Human Practices, Best Wiki, Finalist (iGEM Americas East 2012)

Cornell University
Dean's List (Fall 2010 Fall 2011, Fall 2012 Spring 2013)

#### **LANGUAGES**

English, Spanish