Akshay Ravikumar

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■ Education ■

Massachusetts Institute of Technology (MIT) Candidate for a Bachelor's of Science in EECS

Completed Coursework: Intro to EECS, Relativity, Multivariable Calculus

Spring 2015: Computation Structures, Math for Computer Science, Algorithms, Probability and Random Variables, Differential Equations, Microeconomics

Foothill High School

Pleasanton, CA

Cambridge, MA

Graduation: June 2018

2nd Rank in a Class of ~600, GPA: 4.45 (weighted)

August 2010 - June 2014

Relevant Coursework: AP Physics Mechanics, AP Physics Electricity/Magnetism, AP Chemistry, AP Computer Science, AP Calculus BC, AP Statistics, AP English, AP Spanish IV, AP Psychology

■ Research Experience

MIT Space Systems Lab (SSL) Researcher Cambridge, MA

October 2014 - Present

• Upgrading the C++ framework for SPHERES satellites and testing/implementing Open CV computer vision algorithms that enable the satellites to dock to each other

MIT Computer Science and Artificial Intelligence Laboratory Researcher

Cambridge, MA

October 2014 – December 2014

• Implemented programs on Arduino and PIC32 microcontrollers to help create a system to bring cheap, efficient power to Indian villages

Stanford Institute of Medicine Research (SIMR) Program Researcher

Palo Alto, CA

June 2013 - August 2013

- Directed a three-person project to computationally analyze prostate cancer biomarkers
- Used C++/Java/R to identify trends in protein stability, amino acid composition, etc.

■ Work/Leadership Experience

EmbedUR Systems Software Engineering Intern

Fremont, CA

January 2015

 Pioneering the migration of a C-based Radio Resource Management (RRM) Algorithm from MySQL to Cassandra, a distributed database management system

Art of Problem Solving Class Grader/Assistant

Cambridge, MA

September 2014 – Present

• Assisting in online math/computer science classes, and providing feedback on students' homework

Pleasanton Math Circle (pleasantonmathcircle.com)

Pleasanton, CA

Co-founder and Lecturer

November 2011 - June 2014

• Founded a math circle to educate 60 middle school students on abstract math concepts

Awards/Honors

- First Place in the Media/Advertising Category at the 2014 Harvard Hackfest
- Silver division of the USA Computing Olympiad, an algorithmic programming competition in C++
- Two-time USA Math Olympiad Qualifier, Two-time USA Junior Math Olympiad Qualifier

Skills

- Considerable experience with C++, Python
- Experience with Javascript, C, jQuery, Java, SQL,
 Cassandra, MongoDB, PIC Microcontrollers
- Strong mathematical background
- Currently pursuing independent web development (node, express, socket.io, etc.)