Akshay Ravikumar

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Education

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

Cambridge, MA
Graduation: June 2018

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

Pleasanton, CA
August 2010 – June 2014

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

- Conducted 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)
Co-founder and Lecturer

Pleasanton, CA
November 2011 – June 2014

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

Awards/Honors

- First Place in the Media/Advertising Category at the 2014 Harvard Hackfest
- 4th place at MIT IAP Web Programming Competition (6.470)
- 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 (see my Github)