Akshay Ravikumar

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Education

Massachusetts Institute of Technology (MIT) **Cambridge, MA**
Candidate for a Bachelor's of Science in EECS **Graduation: June 2018**
Relevant Coursework: Intro to EECS, Relativity, Multivariable Calculus, Computation Structures (Spring 2015), Math for Computer Science (Spring 2015), Algorithms (Spring 2015), Probability and Random Variables (Spring 2015), Differential Equations (Spring 2015)

Foothill High School **Pleasanton, CA**
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) **Cambridge, MA**
Researcher **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 **Cambridge, MA**
Researcher **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 **Palo Alto, CA**
Researcher **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

Art of Problem Solving **Cambridge, MA**
Class Grader/Assistant **September 2014 – Present**
- Reading and providing feedback on students' competition math/computer science questions
- Assisting in the classroom, individually helping those who struggle with the material

Pleasanton Math Circle **Pleasanton, CA**
Co-founder and Lecturer **November 2011 – June 2014**
- Founded a math circle to education 30 – 80 middle school students on abstract concept for free
- Lectured biweekly on discrete topics from game theory and graph theory to contest preparation

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++/Java/Python
- Basic experience with Javascript, jQuery, Rails, SQL, PIC Microcontrollers
- Very strong mathematical background
- Quick, passionate learner; always seeking new challenges