

Siddharth Karamcheti

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Education

University of California, Berkeley, Berkeley, CA August 2014 - 2018 (Expected)
Electrical Engineering and Computer Science Major
Regents and Chancellor's Scholar (Awarded to top 3% of incoming class)

Henry M. Gunn High School, Palo Alto, CA 2010 - June 2014
Currently in 12th grade. Cumulative GPA: 4.0 unweighted, 4.3 weighted

<i>Honors classes completed:</i>	<i>AP classes completed:</i>	<i>Current AP classes:</i>
Math Analysis/Calculus A,	BC Calculus, C Physics,	English (Literature),
Trig/Analytic Geometry,	Computer Science,	Economics (Micro, Macro),
Chemistry, Biology	Spanish (Language)	Spanish (Literature)

Egan Jr. High School, Los Altos, CA 2008-2010

Standard Exam Scores

SAT (12/2012): 2320 (770 CR, 780 M, 770 W)

SAT Subject: Math II (06/2012): 800, Chemistry (06/2012): 780

Work Experience

- AutoGrid Systems, Redwood City June – November 2013
Software Development/Research Intern
- Gunn Robotics Team, Henry M. Gunn High School, Palo Alto 2012 - Present
Leader, Controls and Electronics
- Linden Tree Books, Los Altos Summer 2011
Accounting, computer-based research on competitive pricing, databases

Enrichment

- California State Summer School for Mathematics and Science Summer 2012
(**COSMOS**) University of California, Davis. Acceptance rate: 200 out of 900+ applicants.
Cluster: Mathematical Modeling of Biological Systems

Competitions/Awards

- FIRST Robotics Regional Awards. 2013/Salt Lake City – First Place (with Gunn Robotics Team)
- COMAP High School Competition in Mathematical Modeling. 2013 - “Finalist”
- National Spanish Exam. 2012 - Gold Medalist
- Henry M. Gunn High School Department Awards. 2013 – Spanish, 2012 – Chemistry

Computer Skills

- Programming Languages: Python, Java, Scheme, R
- Frameworks/Libraries: Python Pandas/Numpy, Multiprocessing, Celery, Hadoop/HBase (MapReduce, Hadoop Streaming), MySQL, Kivy (Multi-touch interface), wpiLib (Robotics Library)
- Link to GitHub (with all project code): <https://github.com/Siddk>

Leadership and Volunteering

- Controls and Programming Lead, Gunn Robotics Team 2012 - Present
- Policy Debate Captain, Henry M. Gunn High School Speech and Debate team, 2010-2013
- Treasurer, Palo Alto Youth Council (Branch of the City Council), 2011-2013
- Sophomore Class Council Member, Henry M. Gunn High School Student Government, 2011-12
- Volunteer Judge at Junior Varsity Debate Tournaments throughout the Bay Area, 2010-present
- Student Tutor – Math, Science, Spanish, Physics, 2010-present

Interests/Extra-Curriculars

- Gunn Robotics Team, 2012 - present
- Speech and Debate, 2010 – present
- Percussion/Band, 2007 – present
- Spanish Language, 2008 – present

Projects

AutoGrid Systems

- Demand Response Optimization
 - Research report written regarding an algorithm for Demand Response optimization in a power grid, for applications to outage prevention and detection in third world countries.

Gunn Robotics

- FIRST Robotics 2013 Game Ultimate Ascent – Team 192
 - Utah Championship Video: <https://www.youtube.com/watch?v=3U8P4qWLWhY>
- FIRST Robotics 2014 Game Aerial Assist – Team 192

COSMOS

- Researched and found applications for the use of the Fitzhugh-Nagumo Mathematical Model for Cardiac Action Potentials. Modeled behavior, and analyzed the model.
- Paper can be found here: http://cosmos.ucdavis.edu/archives/2012/cluster9/karamcheti_siddharth.pdf