Andrew M. Zhang

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Education

2016-Now College –UC Berkeley, Computer Science Intended
GPA: 3.9
Currently Taking: CS61B - Data Structures, EE16B - Designing Information Device, CS70 - Discrete Math,

2012-2016 High School –Mission San Jose High School
GPA: 3.92 Unweighted, 4.24 Weighted
AP (all 5's): CompSci, Calculus BC, Statistics, Physics 1, Physics C: Mech and EM, Biology

Recent Awards and Positions Held

- **Lead Android and Full-Stack Developer for Geeni (July 2016 - Current)**

  - Working for a student-run startup at UC Berkeley, 'Geeni'.
  - Integrated Firebase Realtime Database, Cloud Messaging, File Storage, and Google Sign In
  - Current finalist in Berkeley Big Ideas Funding Competition

- **Competitions**

  - USA Computing Olympiad Gold Division (2016)
  - Google Foobar: Finished Level 4/5 Challenge 1 (In Progress)
  - EasyCTF 2015 Computer Security Competition 44th Nationwide (3rd Percentile)
  - FTC Robotics Team Captain (Team 6688, 2016) - Placed regionals twice, among other awards
  - Stanford Programming Contest 2014, 2015, 2016: Honorable Mention

- **Various C++/Java Projects**

  - Hog optimal solve with expectimax tree for CS61A FA15 (2016)
  - Boid (bird) flocking animation w/ Kd-trees and k-nearest neighbor search. (2016)
  - Tic-tac-toe perfect AI player with minimax trees (2015)
  - Collision system animation implemented with priority queues (2015)
  - Raytracer with shaders and reflection (Work In Progress)

- **Research: Eclipsing Binary Star Light Curve Generator, COSMOS, UC Santa Cruz, 2014**

  - Under Prof. Guhathakurta, developed an algorithm that plots light curves of eclipsing binary stars.
  - Took into account the limb darkening effect.
  - Code at: github.com/andrewmzhang/COSMOS-2014-Binary-Eclipse

- **Project: NIXIE tube clock**

  - Designed a clock that uses old NIXIE tubes to display the time.
  - Uses a Teensy 2.0 micro-controller, BCD unit, and voltage transformer
  - To conserve power, time is kept by a separate RTC unit.

Software Engineering Skills

- **Programming Languages and Databases**

  Python 2, 3. C, C++, C#. Java – Android
  HTML, CSS, JavaScript/jQuery – Meteor, AJAX, Nodejs, Bottle Frameworks
  Firebase - Realtime Database, Logins, Cloud Messaging, and Storage
  git - version control system
  Linux Bash - basic scripting
  MongoDB, SQL databases

- **Additional Computer Science Courses**

  Algorithmic Theory – Algorithms by Robert Sedgewick, online Princeton course w/ 100% score
  Machine Learning – Stanford course by Andrew Ng, Caltech course by Abu-Mostofa (in progress)