Andrew M. Zhang

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Education

2016-Now UC Berkeley, Computer Science, RISELab Researcher
GPA: 3.925
Currently Taking: Stats 134 - Probability, Math 110 - Linear Algebra, CS170 Algorithms,
Classes Taken: CS61a - SICP, CS61b - data structures, CS61c - Computer Architecture
CS70 - Discrete Math and Probability, Math 55 - Discrete Math, Math 53 - Multivar Calc
Math 54 - Linear Algebra

Recent Awards and Positions Held

- **Research: Disaggregation Software and Deep Learning Benchmarks for RISELab (Aug 2017 - Current)**
  - Researching disaggregated architecture with Joao Carreira, advised by Prof. Katz
  - Analyzing Inception Convolutional Neural Nets for bottlenecks on Firebox machines
- **CalSolar Data Analysis (Aug 2017 - Current)**
  - Working with Berkeley's Cal Solar Car team on new data analytics models
  - Automating data collection from the Solar Car-puter to the server
- **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**
  - Google Foobar: Finished Level 5/5
  - USA Computing Olympiad Gold Division (2016)
  - Stanford Programming Contest 2014, 2015, 2016: Honorable Mentions
  - EasyCTF Computer Security Competition - 98th Percentile Nationally
- **Personal C++/Java Projects - Available on Website**
  - Marching cubes implementation of a Metaballs Animation a spring matrix (2017, Work In Progress)
  - Raytracer with diffuse shading, working on Phong spectrals (2017)
  - 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)
- **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, unlike most light curve simulations.
  - Code at: github.com/andrewmzhang/COSMOS-2014-Binary-Eclipse
- **Class Related Projects**
  - Bearmaps, a map of Berkeley implemented with Quad-trees and the A* shortest path algorithm
  - Scheme Interpreter, written in python 3
  - 16-bit MIPS CPU, implemented with Logisim, complete with pipeline, forwarding, and bubble support

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
  MongoDB, SQL databases