Andrew Zhang

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OBJECTIVE Summer 2013 Internship

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA
S.B. Electrical Engineering and Computer Science, expected May 2016
Fall Courses: Intro to EECS I, Discrete Math, Differential Equations
Spring Courses (planned): Intro to Algorithms, Mobile Technology, Linear Algebra

Palos Verdes Peninsula High School, Rolling Hills Estates, CA
Valedictorian, Mathematics Department Award, weighted GPA: 4.97/4.0, June 2012

WORK EXPERIENCE

Los Angeles Biomedical Research Institute at Harbor-UCLA Medical Center, Torrance, CA
Software Programmer (2010-2012)

- Wrote software in Objective-C to analyze the risk of heart disease from patients' CT scans to be used by radiologists
- Developed an algorithm to automate the process of measuring a patient's bone mineral density
- Worked on various other projects to help doctors integrate the full potential of technology into their research

Sim[ple] (Mobile Game Development)**,** Rancho Palos Verdes, CA
President/Chief Programmer/Chief Level Designer (2011-2012)

- Managed all the procedures of game development including ideation, programming, graphic design, level design, and music. Also worked as chief programmer and chief level designer
- Created the games *Invention and Knaptic*, which reached top 200 games on the iTunes Store in Korea.

Batterybay.net, Rancho Palos Verdes, CA
Programmer (2012)

- Developed web crawlers to extract data from various online store websites

RESEARCH

Password Security: A Study of Rhythmic-Alphanumeric Passwords (2011)

- Formulated an algorithm to check for passwords that increased security of the traditional alphanumeric password and maintained the consistency of the password

Material Advection Simulation(2010)

- Modeled atmospheric material transport using Courant-Friedrichs-Lewy algorithm

An External Merge Sort Program with a Combination of Magnetic Storage and Solid State Storage (2009)

- Wrote an external merge sort program that used solid state storage as a go-between for data transfer between RAM memory and hard-disk memory.

SKILLS Computer: C, C++, Objective-C, Java, Python
Foreign Languages:Chinese

LEADERSHIP PVPHS Math Club: President (2011-2012), co-VP (2010-2011), Secretary (2009-2010)
PVPHS Principal's Advisory Council Member (2011-2012), Eagle Scout

HONORS USA Computing Olympiad Gold Level (top 50 contestants) (2010-2012)
American Invitational Math Examination qualifier (2009, 2010, 2011, 2012)
PVPHS Scholar Athlete (2012)