Alexander P. Chu

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https://github.com/Arctangent1759

Education

University of California, Berkeley   Berkeley, CA
Electrical Engineering and Computer Science (EECS) Major   Graduating May 2016
- **UC GPA:** 3.977, **Technical GPA:** 3.977, **EECS GPA:** 4.00
- **Honors:** Etta Kappa Nu (HKN) Member, Tau Beta Pi (ТВП) Member, Kraft Award for Freshman winner, PennApps Fall 2013 Finalist
- **Coursework:** Linear Algebra and Differential Equations, Data Structures, Signals and Systems, Discrete Math and Probability theory, Machine Structures, Artificial Intelligence, Algorithms, Machine Learning, Digital Signal Processing, Computer Graphics

Work Experience

Northrop Grumman Corporation   El Segundo, CA
Software Engineering Intern   February 2012 – June 2012
Worked with Software Engineering team on mission control software
- Wrote test code for Delaunay Triangulation Algorithm edge cases
- Participated in the Airplane Design and Remote Control Course

Mattel Corporation   El Segundo, CA
Global Information Technology Intern   November 2011 – January 2012
- Implemented PrePlan Database and user interface

Projects

Texit (http://tex.sh/) - RESTful LaTeX rendering and graphing API for websites and markdown. Built on Flask. (PennApps Finalist Entry)

MMO (https://github.com/Arctangent1759/MMO) - A simple online role playing game. Node.js and HTML5. (Work in progress)

Social Alarm Clock (http://wakemeupbeforeyougogo.herokuapp.com/) - Alarm that employs peer-based motivation to wake users

MIPS Processor - A two-stage pipeline 16-bit computer that runs an implementation of the MIPS ISA, built with Logisim

Matrix Multiply - Used the OpenMP framework, blocking strategies, and loop unrolling to optimize a matrix multiplication algorithm

Scheme Interpreter - A recursive interpreter for the Scheme programming language, written in python

Pac-Man AI - A planning agent that finds optimal solutions to the game of Pac-Man using the A* search algorithm

Network AI - An implementation of Game Tree Search with Alpha-Beta pruning for the connect-four-like game of Network

Activities

Global Internships @ Berkeley   UC Berkeley
Webmaster and Board Member   March 2013-Present
Develop and maintain organization server and website
- Maintain internship database scripts and search service
- Advise board on website and technical matters

Hackers@Berkeley   UC Berkeley
Member   August 2012-Present
Learn practical hacking and industry standard development practices from experienced members
- Projects available at https://github.com/Arctangent1759
- Attended tech talks and API workshops

Technical Skills

Programming Languages: Java, Python, C, Javascript, HTML5, MIPS, Shell, LabVIEW, Visual Basic, MATLAB
API Proficiencies: Django, Node.js, JQuery/AJAX, Bootstrap, Android, Phonegap, Leap, Three.js, BeautifulSoup, Flask, OpenMP
Development Environments/Workflow: vim, tmux, vimgdb,Eclipse, Netbeans, Microsoft Visual Studio, Github
Misc: Nessus, Autodesk Inventor, GIMP