

Alexander S. Chai

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Education

Carnegie Mellon University

August 2014 - Present
5000 Forbes Ave. Pittsburgh, PA 15213

Major in Mathematical Sciences, Minor in Computer Science, and an anticipated second major in Computer Science with 05/2018 graduation

Cumulative GPA - 3.73/4.0

Dean's List, High Honors, Fall 2014, Fall 2015

Extracurriculars Include: Origami Club, ACM, CMU Computer Club

Classes Taken or in progress Include:

- 21-241 - Matrices and Linear Transformations
- 15-251 - Great Theoretical Ideas in Computer Science
- 15-213 - Introduction to Computer Systems
- 36-225 - Introduction to Probability Theory
- 15-210 - Parallel and Sequential Data Structures and Algorithms
- 21-373 - Algebraic Structures



Experience

Punahou School - iOS Mobile App Developer

June 2013 - Present
1601 Punahou St. Honolulu, HI

Was a volunteer iOS app developer in high school in charge of directing various student projects

Main developer for the *Bartle Test* project

One of two main developers for *iCarnival* project.

Hawaii Information Service - Internship

June 2014 - August 2014
650 Iwilei Road, Suite 670, Honolulu, HI 96817

Was instrumental member of planning process as well as initial development and programming for the *Caravan* app project, an iOS app designed to assist in real estate survey data management that read and wrote client data to a server using the JSON interchange format.



Skills

Programming Languages

Java, C, Objective-C, HTML/CSS, SML

Languages Spoken

Fluent in English, Basic working proficiency in Japanese



Hacks and Projects

Asteroids in Space! - TartanHacks Entry

February 2015

An interactive game which uses a Myo, a projector, and OpenCV to allow the player to play the game *Asteroids* using the floor as a screen and controlling gameplay with body movement. Was placed in the top 6 best submissions of TartanHacks 2015.

Bartle Test for iOS

Ongoing

A personality test for iPhone and iPad for use in classrooms based on a test created by Erwin Andreasen and Brandon Downey. Currently being updated for version 2.0. v.1.0 Released in Summer of 2014, v.2.0 set to be finished and released soon

<https://itunes.apple.com/us/app/bartle-test/id887069888?mt=8>

iCarnival v.3.0 for iOS

February 2014

An iOS app for high school's annual Carnival in my senior year of high school. The App included information about carnival such as hours and location, as well as a social media feed, maps, and a live update system built using the Parse API.

<https://itunes.apple.com/us/app/icarnival-punahou-carnival/id493164869?mt=8>

iGo Assistant for iOS

May 2014

An iOS app with a partner to assist in the playing of the board game Go for a high school Buddhist philosophy class; said app included guides to which piece configurations or "shapes" would favor one player or the other, and guides to a variety of sets of starting moves, known as *Joseki*

MallocLab - 15-213 Introduction to Computer Systems Project

November 2015

An implementation of dynamic memory allocation in C optimized for heaps of size 4GB or lower. When run through a series of test scripts it achieved a utilization of 88% and a throughput 15% greater than that of the GNU C standard library malloc implementation.

More Projects at: <http://www.contrib.andrew.cmu.edu/~achai/projects.html>