Dickson Tsai

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Education

Univesrity of California, Berkeley
2012 - Present

- B.A. Computer Science and Linguistics, expected May 2016
- 3.86 GPA, 4.0 GPA CS and Linguistics courses

Monta Vista High School
2009-2012 (Cupertino, CA)

- National Merit Semifinalist, AP Scholar with Distinction
- Purple and Gold Award, Spanish

Work Experience

Linguistics Undergraduate Research Apprentice
January 2014 - Present

- Building a searchable MySQL database of Gaelic morphemes for graduate student Christine Sheil.
- Three phases: GUI for easier data entry, database maintenance, web interface.

Reader for UC Berkeley Courses:
CS70: January 2014 - Present
CS61A: June - December 2014

- CS70: Producing video solutions for the homework (Camtasia/Wacom tablet), grading student homework, writing Python/bash scripts to help with grading
- CS61A: Gave feedback on students' coding style ("composition") for their four projects written in Python.

Personal Projects

WikiGuesser
April 2014

- Wikipedia guessing game: built article parser and Node.js/MongoDB server in Big Hack (Cal vs. Stanford hackathon). Github, wikiguesser.herokuapp.com

Gaelic Morphosyntax GUI
February-March 2014

- Implemented a Python Tkinter GUI for organizing and entering in Gaelic morphosyntactic data conveniently to JSON files. Open-sourced on Github.

Cache Text
August 2013

- Chrome extension for saving commonly typed searches, URLs to bindings.
- Built with Javascript and Chrome's APIs. URL: bit.ly/cache_text

Data Structures in 5 Minutes
May 2013

- A 14-video series based off of class notes from UC Berkeley's Data Structures course CS61B to review for the final exam. URL: bit.ly/datastrucin5

HackerRank Monopoly Hackathon March 2013

- Developed a Python program that decided moves based on the current state of the game read from standard input in a 5-hour hackathon.

Selected Course Projects

MapReduce on EC2
Sept. 2013, Great Ideas of Computer Architecture

- Ran an algorithm calculating word co-occurrences on large text corpora using Hadoop and Amazon EC2.

Network
March 2013, Data Structures

- Built a Java program that used alpha-beta pruning and an internal game board representation to play the game Network.

Leadership Experience/Awards

Secretary, Upsilon Pi Epsilon (UPE)
Spring 2014

- Honor society at UC Berkeley for the top 33% of L&S CS majors.

President, Monta Vista Spanish Honor Society
2011-2012

- Organized free weekly tutoring program in MVHS and food fundraisers with officer team
- Awarded "Certificado por servicios" by advisor Molly Guadiamos

Skills

Programming: Python, Java, JavaScript, jQuery, HTML
Working knowledge of C, R, Matlab/Octave, LaTeX, Node.js, Adobe Photoshop/Illustrator/InDesign
Languages: Fluent in Spanish. Limited working proficiency in Chinese, German
External Courses: Machine Learning (Coursera), Computing for Data Analysis (Coursera)

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