RONALD KWAN

BASIC INFORMATION

Email rkwan@berkeley.edu **Phone** (510) 552-7837
Website http://rskwan.github.io/ **LinkedIn** https://www.linkedin.com/in/ronaldkwan

Skills Python, C, Java, C++, HTML, CSS, JavaScript, MATLAB, R, SQL

EDUCATION

UC Berkeley (Berkeley, CA) *Graduation (expected)*: 05/2016
B.A. Computer Science, Mathematics, and Statistics *GPA*: 3.650 (cumulative), 3.907 (CS)

Technical Coursework

EECS (Engineering)	**EECS (Theoretical)**	**Mathematics and Statistics**
Data Structures (CS 61B)	Algorithms (CS 170, 270)	Probability and Statistics (Stat 134, 135)
Operating Systems (CS 162)	Artificial Intelligence (CS 188)	Stochastic Processes (Stat 150)
Compilers (CS 164)	Machine Learning (CS 189, Stat 241A)	Linear Algebra (Math H110)
Signals and Systems (EE 120)	Optimization Models (EE 127)	Analysis and Topology (Math 104, 202A)

EXPERIENCE

Research

Carnegie Mellon University (Pittsburgh, PA) 05/2015 – *present*
Statistical analysis of functional connectivity in fMRI using Python and C. (*Supervisor*: Cosma Shalizi)

UC Berkeley (Berkeley, CA) 02/2014 – *present*
Simulations of wishful thinking in Markov decision processes, written in Python. (*Supervisor*: Tom Griffiths)
Efficient chi-squared testing of genomic data using Scala and Spark. (*Supervisor*: Rasmus Nielsen)

Georgia State University (Atlanta, GA) 05/2014 – 07/2014
Developed a classification algorithm in Python using multiobjective optimization. (*Supervisor*: Robert Harrison)

Industrial

Qualcomm Inc. (Boulder, CO) **Engineering Intern** 06/2013 – 08/2013
Integrated an XML store for configuration settings in mobile Linux C libraries, enabling cross-platform compatibility.

Sandia National Labs (Livermore, CA) **Technical Intern** 06/2012 – 08/2012
Implemention of digital signatures to ensure authenticity and integrity of data in modelling software, written in Java.

Other

UC Berkeley (Department of EECS) **Computer Science Peer Advisor** 09/2014 – *present*
Advising students on academic and logistical issues related to the computer science program at UC Berkeley.

UC Berkeley (Department of EECS) **CS 61A Tutor/Lab Assistant** 09/2014 – 05/2015
Helping students understand concepts of introductory computer science, in both one-on-one and group settings.

Berkeley Math Tournament **Chief Technology Officer** 09/2012 – *present*
Leading development of web apps used in K-12 math contests, built with Python and Django. (bmt.berkeley.edu)

PROJECTS

Personal

NCIndex (ocf.io/~rkwan/ncindex/) **Python** [Flask, SQLAlchemy] Fall 2014
Interface to UC Berkeley instructor ratings on Ninja Courses with easier search and filtering.

4! (fourfactorial.herokuapp.com) **JavaScript** [node.js, jQuery] Fall 2014
Clone of the game 24: the player must compute 24 with only four digits and basic operations.

Analysis of UCB Grade Distributions **Python** [SQLAlchemy] Summer 2014
Comparison of grade distributions between departments and between lower/upper division classes.

Coursework

Distributed Key-Value Store (CS 162) **Java** Fall 2014
Distributed key-value storage system with a primary/replica model, using two-phase commit operations.

APYC: A PYthon Compiler (CS 164) **C++** Fall 2013
Compiler for a dialect of Python. Components: parser/lexer, semantic analyzer, and code generator.

Social Network Analysis (CS 61C) **Java** [MapReduce] Spring 2013
Finds the distribution of degrees of separation in a social network using parallelized breadth-first search.