RONALD KWAN

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Tools   Python, JavaScript, Java, MATLAB, R, SQL, LaTeX

EDUCATION

UC Berkeley (Berkeley, CA)   *Graduation*: 05/2016
B.A. Computer Science, Mathematics, and Statistics   *GPA*: 3.63 (cumulative), 3.91 (CS)
<u>Select Technical Coursework</u> (*Current coursework in italics.*)   1xx: upper division, 2xx: graduate.

CS Core	Data Structures & Algorithms (CS 61B/170/270), Operating Systems (CS 162), Databases (CS 186)
AI & ML	Artificial Intelligence (CS 188), Machine Learning (CS 189, Stat C241A), Optimization (EE 127)
Statistics	*Statistical Computing (Stat 133)*, Probability & Statistics (Stat 134/135), Linear Models (Stat 151A)

WORK & EXTRACURRICULAR EXPERIENCE

<u>Internships</u>

Qualcomm Inc. (Boulder, CO)	**Engineering Intern**	06/2013 – 08/2013
Furthered adoption of OS libraries by replacing hardcoded settings with configuration files.		C
Sandia National Labs (Livermore, CA)	**Technical Intern**	06/2012 – 08/2012
Ensured data integrity and authenticity by adding digital signatures to simulation software.		Java

<u>Student Organization Roles</u> *(Projects discussed below.)*

The Daily Californian (DC)	**Projects Developer**	09/2015 – *present*
Data analysis/visualization and web development for the UC Berkeley student newspaper.		Python, JS
Berkeley Math Tournament (BMT)	**Chief Technology Officer**	09/2012 – *present*
Lead web developer and occasional logistical organizer for biannual K-12 math contests.		Python, JS

<u>Math Tournament Projects</u>

Atomic Grader	http://atomicgrader.com	12/2015 – *present*
Parallelizes exam grading by splitting scanned exams into "atomic" problem answers.		JS (Meteor, React)
BMT Web App Suite	http://bmt.berkeley.edu	09/2012 – *present*
Tools for running math contests, including registration, problem writing, and grading.		Python (Django)

<u>Data Blogging & Journalism</u>

Grade Distributions (DC)	http://projects.dailycal.org/grades	09/2015 – 11/2015
Data visualization for comparing average grades between departments and disciplines.		Python, JS
Admissions Trends (Blog)	http://rkwan.me/blog/ucb-eecs-lscs-admissions	07/2015
Investigation of admissions trends for EECS and CS freshman applicants to UC Berkeley.		Python, R
Grade Distributions (Blog)	http://rkwan.me/blog/ucb-grade-distributions	06/2014
Analysis comparing average grades between departments and lower/upper division classes.		Python, R

ACADEMIC RESEARCH & SERVICE

<u>Research Assistantships</u>

UC Berkeley (Berkeley, CA) *Supervisor*: Tom Griffiths		01/2015 – 12/2015
Models/simulations of optimistic and pessimistic agents in Markov decision processes.		Python (NumPy)
Carnegie Mellon University (Pittsburgh, PA) *Supervisor*: Cosma Shalizi		05/2015 – 07/2015
Detecting activity clusters in brain images, using machine learning for network analysis.		Python (NumPy)
Georgia State University (Atlanta, GA) *Supervisor*: Robert Harrison		05/2014 – 07/2014
Development of an ensemble classification algorithm with multiobjective optimization.		Python (NumPy)

<u>University Service</u>

UC Berkeley (Berkeley, CA)	**Computer Science Peer Advisor**	09/2014 – 12/2015
Advising students on academic and logistical issues related to Berkeley's CS/EECS programs.		
UC Berkeley (Berkeley, CA)	**Reader/Tutor/Lab Assistant**	02/2014 – 12/2015
Grading and tutoring for CS 61A (introductory CS), 70 (discrete math), and 161 (security).		