

# RONALD KWAN

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**Tools** Python, JavaScript, Java, MATLAB, R, SQL, L<sup>A</sup>T<sub>E</sub>X

## EDUCATION

UC Berkeley (Berkeley, CA) *Graduation:* 05/2016  
**B.A. Computer Science, Mathematics, and Statistics** *GPA:* 3.63 (cumulative), 3.91 (CS)  
**Select Technical Coursework** (*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

### Internships

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

### Student Organization Roles (*Projects discussed below.*)

|  |                                 |                          |
|--|---------------------------------|--------------------------|
| <b>The Daily Californian</b> (DC)  | <b>Projects Developer</b>       | 09/2015 – <i>present</i> |
| Data analysis/visualization and web development for the UC Berkeley student newspaper.     |                                 | Python, JS               |
| <b>Berkeley Math Tournament</b> (BMT)  | <b>Chief Technology Officer</b> | 09/2012 – <i>present</i> |
| Lead software developer for biannual K-12 math contests attracting 350-500+ students/year. |                                 | Python, JS               |

### Math Tournament Projects

|   |   |                          |
|---|---|--------------------------|
| <b>Atomic Grader</b>  | <a href="http://atomicgrader.com">http://atomicgrader.com</a> | 12/2015 – <i>present</i> |
| Parallelizes exam grading by splitting scanned exams into “atomic” problem answers. |   | JS (Meteor, React)       |
| <b>BMT Web App Suite</b>  | <a href="http://bmt.berkeley.edu">http://bmt.berkeley.edu</a> | 09/2012 – <i>present</i> |
| Tools for math contests: registration (public) and problem writing/grading (staff). |   | Python (Django)          |

### Data Blogging & Journalism

|  |   |                   |
|--|---|-------------------|
| <b>Grade Distributions</b> (DC)  | <a href="http://projects.dailycal.org/grades">http://projects.dailycal.org/grades</a>                     | 09/2015 – 11/2015 |
| Data visualization for comparing average grades between departments and disciplines.   |   | Python, JS        |
| <b>Admissions Trends</b> (Blog)  | <a href="http://rkwan.me/blog/ucb-eecs-lscs-admissions">http://rkwan.me/blog/ucb-eecs-lscs-admissions</a> | 07/2015           |
| Investigation of admissions trends for EECS and CS freshman applicants to UC Berkeley. |   | Python, R         |

## ACADEMIC RESEARCH & SERVICE

### Research Assistantships

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

### University Service

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