## Alan Peral

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EDUCATION Pomona College, Claremont, CA

B.A., Mathematics May 2018

 $Minor,\ Computer\ Science$ 

Relevant Coursework

Algorithms, Operations Research, Data Structures and Advanced Programming, Machine Learning,

Computational Statistics, Probability

Skills Programming/Markup Languages: Java, JavaScript, Python, R, C, SML, HTML, CSS, LATeX

Frameworks/Libraries: jQuery, AngularJS, Bootstrap

Languages: Spanish, French

EXPERIENCE WunderTec, Mexico City

Intern June 2016 – Aug 2016

Worked on building enterprise software to handle every aspect of clients' business operations, including project management, online payment processing, automated billing systems. IT service management, customer relationship management, and more.

CodeU

Mentee Feb 2016 – Aug 2016

Completed online technical curriculum to increase fluency with advanced algorithms and working with databases. Working with the Apache Lucene library, built a search engine with auto-complete capabilities, spell-check feature, TF-IDF implementation, and other features.

Computer Science Department, Claremont, CA

Math Department, Claremont, CA

Teaching Assistant September 2016 – Present

Held weekly mentor and lab sessions for 50 students in an Introductory Computer Science course. Graded problem sets for 20 students in Introduction to Computer Science and 40 students in a Combinatorics course. Also held mentor sessions for 30 students in an Honors Calculus course.

Math Department, Claremont, CA

Research Assistant Feb 2016 – May 2016

Sought to generalize theorem about subsets of the finite set to the divisors of an integer. Found counterexamples to several existing conjectures about the width of cutsets in the divisor lattice which then allowed me to formulate new conjectures.

ACTIVITIES Pomona College, Claremont, CA

Resident Assistant May 2015 – May 2016

Served as the first point of contact for all needs of hall residents with the goal of establishing a positive living environment. Responsible for assisting with security, addressing emergencies, coordinating campus-wide activities, counseling, and enforcing college policies.

Chicano-Latino Student Affairs, Claremont, CA

Mentor August 2016 – May 2017

Served as a mentor for first year students who identified as latinx in order to ease their transition into an often alienating college environment.

PROJECTS Visualizing the Effects of Armed Conflicts November – December 2017

Used the UCDP/PRIO Armed Conflict Dataset and socioeconomic indicator data from the World-Bank to build an analysis and visualization tool with R and Shiny that displays the network of conflicts between nations, the effect of conflicts on various socioeconomic indicators in a nation, and the prevalence of conflict in the Global South.