

# Alan Peral

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CONTACT INFORMATION Phone: (312) 610-3580 Website: <http://www.aaperal.com>  
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EDUCATION **University of California, Santa Cruz**  
*Ph.D. Student in Computer Science*  
**Pomona College**, Claremont, CA  
*B.A. in Mathematics, Computer Science Minor* **May 2018**

## Relevant Coursework

Computer Graphics, Analysis of Algorithms, Operations Research, Data Structures and Advanced Programming, Machine Learning, Computational Statistics, Probability

SKILLS *Programming/Markup Languages:* Python, Java, JavaScript, R, HTML,  $\text{\LaTeX}$   
*Frameworks/Libraries:* jQuery, AngularJS, Bootstrap  
*Languages:* Spanish, French

PROJECTS **Implementing Image Style Transfer for 3D Face Scans** **November – December 2018**  
Used PyTorch to implement a neural algorithm of artistic style for 3D face scans, allowing a user to scan their face using an app, choose an image for style, and then see how their face texture was affected by the style image.

**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.

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.

**Computer Science Department, UCSC**  
*Teaching Assistant* **September 2018 – Present**  
Held weekly sections and office hours for over 50 students in an upper division Computer Science course. Graded weekly technical writing assignments.

**Computer Science Department, Claremont, CA**  
**Math Department, Claremont, CA**  
*Teaching Assistant* **September 2016 – May 2018**  
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.