

Diego Avalos

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Education

- **California State Polytechnic University, Pomona** Pomona, CA 2016-June 2018
Master's Degree in Mathematics (Applied Emphasis) GPA 4.00
- **University of California, Berkeley** Berkeley, CA 2014-2016
Bachelor's Degree in Pure Mathematics GPA 3.70
- **Saddleback College** Mission Viejo, CA 2011-2014
UC Transfer IGETC Certification in Mathematics

Work Experience

- **C2 Education** Rancho Santa Margarita, CA March 2017 - Present
Math Tutor

Tutor K-12 students in groups of at most three people per two-hour session. My main duties consist of creating a lesson plan for each student before a session to help them succeed at school. The subjects I teach are algebra, geometry, trigonometry, AP calculus, and physics. Furthermore, help students prepare for standardized math examinations such as the math ACT and SAT.

- **University of California, Berkeley** Berkeley, CA Summer 2016
Summer Bridge Workshop Leader

Conducted daily one-hour sessions with an assigned section of nineteen Math 96 (College Algebra) students. My in-class duties included facilitating workshop and performing exercises demonstrations in a lecture style. My outside-of-class duties included attending daily meetings with the main professor to coordinate the material for the following day, having several drop-in tutoring hours, and grading quizzes and exams.

- **Saddleback College** Mission Viejo, CA Fall 2013 & Spring 2014
Supplemental Instructor

Held several office hours to assist students with Math 3A (Calculus 1), 3B (Calculus 2), and 3C (Multivariable Calculus). My duties also included having weekly meetings with professors to look over the material they covered in lecture to allow me to assist students more effectively.

- **Saddleback College** Mission Viejo, CA Fall 2012 to Spring 2014, Fall 2016
General Math Tutor

Assisted groups of students in various math classes, such as basic algebra, trigonometry, college algebra, pre-calculus, single and multivariable calculus, linear algebra, and differential equations, as well as physics.

- **Saddleback College** Mission Viejo, CA Summer 2012 & 2013
Orange County Bridge 2 Engineering Program Tutor

Assisted engineering students with their algebra, trigonometry, and pre-calculus skills in an accelerated summer program.

Computer Skills

- **Matlab**

Advanced

I use Matlab in assignments and projects in graduate level courses, such as mathematical modeling, nonlinear programming, and numerical analysis, to investigate trajectories of differential equations and their change under perturbations, and to implement optimization and root-seeking methods. I also use Matlab as a teaching aid to create programs that generate math exercises.

- **R**

Experienced

I use R in applied probability and statistics classes for assignment involving data analysis.

- **Python**

Experienced

I use Python for personal projects.

- **LaTeX**

Advanced

I use LaTeX for typing all my projects and slideshow presentations throughout my college life.

- **Excel**

Experienced

I use Excel to manipulate data in physics laboratory assignments, and to organize personal data.

- **Mathematica**

Experienced

I use Mathematica as an aid to solve various types of algebraic and differential equations in closed form as my second option after Matlab.

- **HTML, CSS, and JavaScript**

Basic

I use these languages to edit my personal website DiegoAvalos.net.

- **C++**

Basic

I only used this language for one introductory computer science course.

Memberships, Honors, and Awards

- Society for Industrial and Applied Mathematics (SIAM) member 2017 - Present
- The National Science Foundation S-STEM Scholarship 2013
- The Dr. Steve Sworder Memorial Mathematics Scholarship 2013
- Phi Theta Kappa Honor Society Member

Activities

- **Member of the SIAM E-Board at Cal Poly Pomona** 2017-2018 Academic Year
Science Council Representative

My duties include speaking for SIAM at the university's science council and assisting to all SIAM meetings during the year.

- **Mathematics Competitions**

* 2017 SIAM Integration Bee at Cal Poly Pomona. Winner.

* 2012 & 2013 Academic Triathlon at Saddleback College. Top 8 Winner.

* 2004 UGEL High School Mathematical Olympiads in Lima, Peru. Participant.

- **Saddleback College Mission Viejo, CA** Spring 2012
Volunteer Math Tutor

Assisted students in various math classes ranging from basic algebra to calculus for fifty hours during the spring semester of 2012.

Countries of Citizenship

Peru (first citizenship) and United States (permanent resident, citizenship expected 2017). Fluent in English and Spanish.