

EXTRA INFORMATION

EMMANUEL A. GARCIA

JANUARY 13, 2016

I have vast and varied experience working with both college and high school students. At UC Riverside, I was a secondary instructor for two years while working on my doctorate. For the past 3 years, I've been employed as a high school teacher, teaching Geometry, Algebra 2, Precalculus, AP Calculus and Statistics and everything in between. I even home schooled my daughters (currently 6, 8, and 10) for several years.¹

The attributes that set me apart from other candidates, however, lie not in my teaching experience, but rather in my involvement with the University of California, Riverside's *Summer Bridge Program*. The program was aimed at preparing incoming freshman to succeed at the college level. The goals of the program included discussing the purpose of the university, and the common but often complicated and complex struggles new students face that threaten their success. It has been an amazing experience in my life to see students that I helped and taught graduate from college.

At my present place of employment, I have acted as the impetus to re-shape the math curriculum. I have worked collaboratively with colleagues to redo the Pre-Calculus course as a flipped classroom. This was an extensive undertaking that involved reworking assessments, making videos, and reworking the flow and content of the class. It was a success and many students are leaving the class better prepared than ever.

I spearheaded efforts to use rigorous statistical analysis to monitor and evaluate student learning and the effectiveness of my teaching methods. For instance, my students fill out daily surveys about the content and quality of my presentations and I encourage students to reflect and comment on how effective they feel I am as a teacher. I also make all class materials (lecture slides, handouts, homework assignments, etc.) available in an aesthetically pleasing electronic form. I am very interested exploring how I can use the Sagemath Cloud² in an education setting.

I have shown myself capable of working with and leading my colleagues as the Summer Geometry Level Lead at Saint Francis' Summer School. I was the level lead for four different geometry teachers and five teaching assistants. It's hard to strike a balance that meets so many individual's preferences and styles, but my years of experience as an instructor at the university and the high school level helped me foster an environment that allowed everyone the latitude to approach the class to their preference while ensuring that students in all classes had a fair and challenging experience. I am excited to work with a group whose goal is to completely rethink math education as hands on and proof centered.

¹ I taught them basic math using the Right Start Program. It focuses on conceptual understanding over efficiency of computation. It was an amazing experience to see my daughters basically discover the multiplication and division algorithms on their own.

² Try it out at c1oud.sagemath.org. It provides a full online environment for Jupyter notebooks with Python, R, and octave kernels in addition to offering collaborative online \LaTeX experience all in your browser.

My personal background and work experience has uniquely prepared me to serve many students of varied, complex backgrounds. I grew up in a multi-racial household. My white mother's family is from Minnesota, and my Nicaraguan father was a refugee of the Nicaraguan civil war. I grew up in East Los Angeles and attended an very socioeconomically, culturally, ethnically diverse high school. It was a private high school, but they felt a quality education shouldn't merely be a privilege to those who could afford it (and strove to instill similar values in their students). Hence, they provided many need-based scholarships; I was a recipient of one of those need-based scholarships. I was the first person in my family to graduate from college—my parents attended and attempted to finish, but never did. I worked full time and part time during my undergraduate and graduate degrees. I understand the demands and consequent strain that working students encounter. Having had my first child at 19, I understand the stresses that parenthood places on students. I helped support my parents while I was in school. I understand that students may have obligations to their families of origin for cultural or financial reasons in addition to providing for themselves and pursuing a degree. Currently, I am helping my sister attend community college at De Anza in the Bay Area. She works part time and is able to go to school because we have an agreement that she's permitted to live with us as long as she makes progress in school.

I'm no stranger to the complexities of life, the hardships that the complex intersections of identity that many cross-cultural Californians face. In addition to this, I'm extremely aware of ableism. My father is on the Autism spectrum, and I've witnessed firsthand the discrimination that neuro-atypical people face. Because of this, I'm very conscious about the preferential treatment that able-bodied and neuro-typical people receive, and I strive to be conscientious and inclusive.

Another eye-opening experience that has contributed to my awareness and sensitivity to marginalized individuals is having 3 daughters, who are also multi-racial. Teaching at a high school and volunteering in my daughters' classrooms has been eye opening showing me the different and subtle ways teachers respond to females and that students react to girls, especially in math and science courses.