

# D. Zack Garza

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EDUCATION	<b>University of Georgia,</b>	Aug 2019 – Present
	▪ Ph.D. in Mathematics ( <i>In Progress</i> )	
	<b>University of California, San Diego</b>	Aug 2015 – Jun 2018
	▪ B.S. in Mathematics, Computer Science minor.	
	<b>University of California, Berkeley</b>	Sep 2014 – Jun 2015
	▪ Concurrent Enrollment	
	<b>Sierra College</b>	Sep 2011 – Jun 2014
	▪ A.A. in Mathematics	
	▪ A.S. in Physics	
	▪ A.A. in Fine Arts	
HONORS & AWARDS	▪ UGA Capturing Science Contest, 2nd Place	2020
	▪ Louise Hoffmasterand and Frank R. Etchberger Graduate Scholarship ( $\times 2$ )	2019 – 2021
	▪ UC San Diego Academic Enrichment Program Undergraduate Research Scholarship ( <i>Declined</i> )	2018
	▪ Diana C. Miles Scholarship	2017 – 2018
	▪ Errett Bishop Scholarship	2016 – 2017
	▪ Richard L. and Fern W. Erion and Laidlaw-Erion Scholarship	2016 – 2017
	▪ Provost Honors (Muir College, UC San Diego)	2015 – 2016
TEACHING & OUTREACH	<b>Teaching</b>	
	▪ ( <i>Planned</i> ) Instructor of Record, Calculus I (Math 2250, 2 Sections), UGA	Fall 2021
	▪ Instructor of Record, PreCalculus (Math 1113, 1 Section), UGA	Fall 2020
	▪ Instructor of Record, PreCalculus (Math 1113, 2 Sections), UGA	Spring 2021
	▪ Training: Graduate Teaching Seminar, UGA	Fall 2019 - Present
	<b>Grading and Tutoring</b>	
	▪ Graduate Mathematics Assistant, Tutoring Program (UGA)	Fall 2019 – Spring 2020
	▪ Recitation Leader: Calculus I (Math 2200, UGA)	Fall 2019
	▪ Grading	
	• Real Analysis (Math 4100/6100, UGA)	Fall 2020
	• Foundations of Geometry (Math 5200/7200, UGA)	Spring 2020
	• Differential Geometry (Math 4250/6250, UGA)	Spring 2020
	• Algebra for Middle School Teachers (Math 5035, UGA)	Spring 2020
	▪ Private Tutoring	2014 – Present
	• 20+ student clients.	
	• Subjects: Calculus, Linear Algebra, Differential Equations, Real Analysis, Abstract Algebra, Complex Analysis, Point-Set Topology, Number Theory, Probability, Combinatorics	
	<b>Extracurricular Organizations</b>	
	▪ President, Society of Undergraduate Mathematics Students (UCSD)	2016 – 2018
	▪ Officer, Mathematics Club (Sierra College)	2013 – 2014
SELECTED TALKS	▪ Homotopy Groups of Spectra (Stable Homotopy Seminar, Online)	Mar 2021
	▪ Seminar in Floer Homology (Multiple Talks)	Fall 2020
	▪ Classification Theorems in Topology and Geometry (Mock AMS, UGA)	Jul 2020
	▪ Homotopy Groups of Spheres (Graduate Student Seminar, UGA)	Apr 2020
	▪ Zeta Functions and the Weil Conjectures (CRAAG Arithmetic Geometry Seminar, UGA)	Feb 2020

	<ul style="list-style-type: none"> <li>▪ The Arnold Conjecture: Periodic Orbits in Symplectic Geometry (Graduate Student Topology, Seminar, UGA)</li> </ul>	Feb 2020
	<ul style="list-style-type: none"> <li>▪ Poincaré Conjectures and the Kervaire Invariant One Problem (Graduate Student Topology Seminar, UGA)</li> </ul>	Oct 2019
	<ul style="list-style-type: none"> <li>▪ Spectral Sequences: A Primer (Graduate Student Seminar, UGA)</li> </ul>	Oct 2019
	<ul style="list-style-type: none"> <li>▪ Comparison Theorems in Cohomology: Singular, Simplicial, de Rham, and Čech</li> </ul>	Sep 2019
	<ul style="list-style-type: none"> <li>▪ Mathematics Subject GRE Workshop (UCSD)</li> </ul>	Mar 2019
	<ul style="list-style-type: none"> <li>▪ Homotopy and the Hopf Fibration (UCSD)</li> </ul>	Jun 2018
	<ul style="list-style-type: none"> <li>▪ Spectral Sequences and Higher Homotopy Groups of Spheres (Poster) <i>UC San Diego Undergraduate Research Symposium</i></li> </ul>	May 2018
	<ul style="list-style-type: none"> <li>▪ Topological Fixed Point Theorems (UCSD)</li> </ul>	Mar 2018
	<ul style="list-style-type: none"> <li>▪ Homology and The Snake Lemma (UCSD)</li> </ul>	Nov 2017
	<ul style="list-style-type: none"> <li>▪ Algebraic Geometry: A Historical Primer (UCSD)</li> </ul>	Oct 2017
	<ul style="list-style-type: none"> <li>▪ Introduction to Category Theory, Part 3 (UCSD)</li> </ul>	Jan 2017
	<ul style="list-style-type: none"> <li>▪ Introduction to Category Theory, Part 2 (UCSD)</li> </ul>	Nov 2016
	<ul style="list-style-type: none"> <li>▪ Introduction to Category Theory, Part 1 (UCSD)</li> </ul>	Oct 2016
	<ul style="list-style-type: none"> <li>▪ Discrete Mathematics: Graphs and Trees (UCSD)</li> </ul>	May 2014
<b>WORKSHOPS</b>	<ul style="list-style-type: none"> <li>▪ Introduction to Functional Programming (Organizer/Speaker, UCSD)</li> <li>▪ Intermediate <math>\LaTeX</math> (Organizer/Speaker, UCSD)</li> <li>▪ Introduction to <math>\LaTeX</math> (Organizer/Speaker, UCSD)</li> <li>▪ Intermediate <math>\LaTeX</math> (Organizer/Speaker, UCSD)</li> <li>▪ Organizing Research Projects with <math>\LaTeX</math> (Organizer/Speaker, UCSD)</li> <li>▪ Introduction to <math>\LaTeX</math> (Organizer/Speaker, UCSD)</li> <li>▪ Haskell for Mathematicians (Organizer/Speaker, UCSD)</li> </ul>	Oct 2017 May 2017 Apr 2017 Feb 2017 Jan 2017 Nov 2016 Oct 2016
<b>WORK EXPERIENCE</b>	<p><b>Retail Scientifics</b>, San Diego, CA</p> <ul style="list-style-type: none"> <li>▪ Data Scientist &amp; Full Stack Engineer <ul style="list-style-type: none"> <li>• API development for real-time predictive modeling, time-series forecasting, and machine learning.</li> </ul> </li> </ul> <p><b>Google Summer of Code</b>, Berkeley, CA</p> <ul style="list-style-type: none"> <li>▪ Student Developer <ul style="list-style-type: none"> <li>• Contributed Haskell code to the open source project Hackage.</li> </ul> </li> </ul> <p><b>Shutterfly</b>, Santa Clara, CA</p> <ul style="list-style-type: none"> <li>▪ Software Engineer, Intern/Contractor <ul style="list-style-type: none"> <li>• Developed server-side OpenGL 3D graphics engine and associated mathematical libraries.</li> </ul> </li> </ul>	Jan 2016 – Aug 2019  Apr 2015 – Aug 2015  Jun 2014 – Jan 2015
<b>CONFERENCES</b>	<ul style="list-style-type: none"> <li>▪ Graduate Online Anything Topology Conference (GOATS) (Organizer, 3 iterations)</li> </ul>	Summer 2020
<b>MISC.</b>	<ul style="list-style-type: none"> <li>▪ List of coursework: <a href="https://dzackgarza.com/activities/coursework">https://dzackgarza.com/activities/coursework</a></li> <li>▪ Expository writing and open-source collection of course notes in <math>\LaTeX</math>: <a href="https://dzackgarza.com/writing/">https://dzackgarza.com/writing/</a></li> </ul>	