# D. Zack Garza

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EDUCATION	University of Georgia, Athens,GA, USA	Aug 2019 – Present
	■ Ph.D. in Mathematics (Expected)	
	University of California, San Diego, La Jolla, CA, USA	Aug 2015 – Jun 2018
	<ul> <li>B.S. Mathematics</li> <li>Minor in Computer Science</li> </ul>	
	■ Major GPA: 3.723	
	University of California, Berkeley, Berkeley, CA, USA	Sep 2014 – Jun 2015
	<ul> <li>Concurrent Enrollment</li> <li>CS 70: Discrete Mathematics and Probability Theory</li> <li>EE 20: Structure and Interpretation of Systems and Signals</li> <li>Cumulative GPA: 3.33</li> </ul>	
	Sierra College, Rocklin, California, USA	Sep 2011 – Jun 2014
	<ul> <li>A.A. Mathematics</li> <li>A.S. Physics</li> <li>A.A. Fine Arts</li> </ul>	•
WORKSHOPS AND	<ul> <li>Mathematics Subject GRE Workshop</li> </ul>	Mar 2019
TALKS	<ul> <li>Homotopy and the Hopf Fibration</li> </ul>	Jun 2018
	■ Topological Fixed Point Theorems	Mar 2018
	<ul><li>Homology and The Snake Lemma</li><li>Algebraic Geometry: A Historical Primer</li></ul>	Nov 2017 Oct 2017
	<ul> <li>Introduction to Functional Programming</li> </ul>	Oct 2017
	■ Intermediate LAT <sub>E</sub> X	May 2017
	■ Introduction to L <sup>A</sup> T <sub>E</sub> X ■ Intermediate LaTeX	Apr 2017 Feb 2017
	<ul> <li>• Intermediate LaTeX</li> <li>• Organizing Research Projects with LaTeX</li> </ul>	Jan 2017
	Category Theory as an Organizational Tool	Jan 2017
	■ Introduction to LaTeX	Nov 2016
	<ul> <li>Introduction to Category Theory, Part 2</li> </ul>	Nov 2016
	Introduction to Category Theory, Part 1	Oct 2016
	<ul><li>Haskell for Mathematicians</li><li>Discrete Mathematics: Graphs and Trees</li></ul>	Oct 2016 May 2014
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AWARDS	<ul> <li>UC San Diego Academic Enrichment Program</li> <li>Summer Undergraduate Research Scholarship (Declined)</li> </ul>	2018
	<ul> <li>Diana C. Miles Scholarship</li> </ul>	2017 – 2018
	■ Errett Bishop Scholarship	2016 – 2017
	<ul><li>Richard L. and Fern W. Erion and Laidlaw-Erion Scholarship</li></ul>	2016 - 2017
	<ul><li>Provost Honors (Muir College, UC San Diego)</li></ul>	2015 – 2016
SERVICE	President, Society of Undergraduate Mathematics Students, UC San Diego	2016 – 2018
	Officer, Mathematics Club, Sierra College	2013 – 2014
TEACHING	University of Georgia	
	■ Graduate School Teaching Seminar (GRSC 7770)	Fall 2019
	Private Tutoring	2014 – Present

• Calculus, Linear Algebra, Differential Equations, Real Analysis, Abstract Algebra, Complex Analysis, Point-Set Topology, Number Theory, Probability

## WORK **EXPERIENCE**

## Retail Scientifics, San Diego, CA

Jan 2016 - Aug 2019

- Data Scientist & Full Stack Engineer
  - API development for real-time predictive modeling and machine learning.

## Google Summer of Code, Berkeley, CA

Apr 2015 - Aug 2015

- Student Developer
  - Contributed Haskell code to the open source project Hackage.

#### Shutterfly, Santa Clara, CA

Jun 2014 - Jan 2015

Winter 2015

Fall 2015 - Spring 2016

Fall 2015

- Software Engineer, Intern/Contractor
  - Server-side compute graphics engine development in OpenGL for rendering 3D models.

#### **COURSEWORK**

## **Graduate Coursework**

<ul> <li>Algebraic Topology</li> </ul>	Fall 2017 – Spring 2018
<ul> <li>Quantum Mechanics for Mathematicians</li> </ul>	Spring 2017
■ Functional Analysis	Fall 2016 – Winter 2017
<ul><li>Algebra</li></ul>	Fall 2017

## **Undergraduate Coursework**

Software Tools and Techniques

Combinatorics

■ Abstract Algebra

<ul><li>Cryptography</li></ul>	Winter 2018
<ul> <li>Numerical Methods and Physical Modeling</li> </ul>	Fall 2017
■ Image Processing	Fall 2017
Applied Linear Algebra	Summer 2017
<ul> <li>Partial Differential Equations</li> </ul>	Summer 2017
■ Computer Vision	Spring 2017
■ Complex Analysis	Spring 2017
<ul> <li>History of Mathematics (Hyperbolic Geometry)</li> </ul>	Spring 2017
■ Theory of Computation	Winter 2017
<ul> <li>Introductory Machine Learning</li> </ul>	Winter 2017
■ Discrete Math and Graph Theory	Winter 2017
<ul><li>Design and Analysis of Algorithms</li></ul>	Fall 2016
■ Number Theory	Summer 2016
<ul> <li>Advanced Data Structures</li> </ul>	Spring 2016
■ Knot Theory	Spring 2016
■ Point-Set Topology	Winter 2015
<ul> <li>Mathematical Algorithms and Systems Analysis in Computer Science</li> </ul>	Winter 2015
<ul><li>Probability</li></ul>	Winter 2015

■ Real Analysis	Fall 2015 – Spring 2016
<ul> <li>Mathematical Reasoning and Proof</li> </ul>	Summer 2015
<ul> <li>Vector Calculus</li> </ul>	Summer 2015

<ul> <li>Structure and Interpretation of Signals and Systems</li> </ul>	Spring 2015
<ul> <li>Assembly Programming (x86)</li> </ul>	Spring 2015
■ C++ Programming	Spring 2015
■ Finite Mathematics and Linear Programming	Spring 2015
<ul> <li>Discrete Mathematics and Probability Theory</li> </ul>	Fall 2014
<ul> <li>Structure and Interpretation of Computer Programs (Python)</li> </ul>	Fall 2014

<ul><li>Elementary Statistics</li></ul>	Summer 2014
<ul><li>Introduction to Unix</li></ul>	Summer 2014
<ul> <li>Discrete Mathematics</li> </ul>	Spring 2014
<ul> <li>Electrical Circuit Theory</li> </ul>	Spring 2014

<ul><li>Differential Equations and Linear Algebra</li><li>Data Structures</li></ul>	Spring 2014 Fall 2012
<ul> <li>General Chemistry</li> <li>Physics: Mechanics, Electromagnetism, Optics, and Waves</li> <li>Calculus: Single and Multivariable</li> <li>Systems Programming with C</li> <li>Discrete Structures in Computer Science</li> <li>Object-Oriented Programming</li> </ul>	Spring 2013 – Summer 2013 Fall 2012 – Spring 2013 Fall 2012 – Spring 2013 Fall 2012 Fall 2012 Spring 2012