

# D. Zack Garza

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EDUCATION	<b>University of Georgia</b> , Athens, GA, USA	Aug 2019 – Present
	▪ Ph.D. in Mathematics (Expected)	
	<b>University of California, San Diego</b> , La Jolla, CA, USA	Aug 2015 – Jun 2018
	▪ B.S. Mathematics ▪ Minor in Computer Science ▪ Major GPA: 3.723	
	<b>University of California, Berkeley</b> , Berkeley, CA, USA	Sep 2014 – Jun 2015
	▪ Concurrent Enrollment <ul style="list-style-type: none"><li>• CS 70: Discrete Mathematics and Probability Theory</li><li>• EE 20: Structure and Interpretation of Systems and Signals</li></ul>	
	▪ Cumulative GPA: 3.33	
	<b>Sierra College</b> , Rocklin, California, USA	Sep 2011 – Jun 2014
	▪ A.A. Mathematics ▪ A.S. Physics ▪ A.A. Fine Arts	
WORKSHOPS AND TALKS	▪ Mathematics Subject GRE Workshop	Mar 2019
	▪ Homotopy and the Hopf Fibration	Jun 2018
	▪ Topological Fixed Point Theorems	Mar 2018
	▪ Homology and The Snake Lemma	Nov 2017
	▪ Algebraic Geometry: A Historical Primer	Oct 2017
	▪ Introduction to Functional Programming	Oct 2017
	▪ Intermediate LaTeX	May 2017
	▪ Introduction to LaTeX	Apr 2017
	▪ Intermediate LaTeX	Feb 2017
	▪ Organizing Research Projects with LaTeX	Jan 2017
	▪ Category Theory as an Organizational Tool	Jan 2017
	▪ Introduction to LaTeX	Nov 2016
	▪ Introduction to Category Theory, Part 2	Nov 2016
	▪ Introduction to Category Theory, Part 1	Oct 2016
	▪ Haskell for Mathematicians	Oct 2016
	▪ Discrete Mathematics: Graphs and Trees	May 2014
AWARDS	▪ UC San Diego Academic Enrichment Program	
	Summer Undergraduate Research Scholarship (Declined)	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
SERVICE	<b>President, Society of Undergraduate Mathematics Students</b> , UC San Diego	2016 – 2018
	<b>Officer, Mathematics Club</b> , 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

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

## COURSEWORK

### Graduate Coursework

- Algebraic Topology
- Topics in Real Analysis: Quantum Mechanics (Graduate)
- Functional Analysis
- Algebra

Fall 2017 – Spring 2018  
Spring 2017  
Fall 2016 – Winter 2017  
Fall 2017

### Undergraduate Coursework

- Cryptography
- Numerical Methods and Physical Modeling
- Image Processing
- Applied Linear Algebra
- Partial Differential Equations
- Computer Vision
- Complex Analysis
- History of Mathematics (Hyperbolic Geometry)
- Theory of Computation
- Introductory Machine Learning
- Discrete Math and Graph Theory
- Design and Analysis of Algorithms
- Number Theory
- Advanced Data Structures
- Knot Theory
- Point-Set Topology
- Mathematical Algorithms and Systems Analysis in Computer Science
- Probability
- Software Tools and Techniques
- Combinatorics
- Abstract Algebra
- Real Analysis
- Mathematical Reasoning and Proof
- Vector Calculus
- Structure and Interpretation of Signals and Systems
- Assembly Programming (x86)
- C++ Programming
- Finite Mathematics and Linear Programming
- Discrete Mathematics and Probability Theory
- Structure and Interpretation of Computer Programs (Python)
- Elementary Statistics
- Introduction to Unix
- Discrete Mathematics
- Electrical Circuit Theory

Winter 2018  
Fall 2017  
Fall 2017  
Summer 2017  
Summer 2017  
Spring 2017  
Spring 2017  
Spring 2017  
Winter 2017  
Winter 2017  
Fall 2016  
Summer 2016  
Spring 2016  
Spring 2016  
Winter 2015  
Winter 2015  
Winter 2015  
Fall 2015  
Fall 2015 – Spring 2016  
Fall 2015 – Spring 2016  
Summer 2015  
Summer 2015  
Spring 2015  
Spring 2015  
Spring 2015  
Spring 2015  
Fall 2014  
Fall 2014  
Summer 2014  
Summer 2014  
Spring 2014  
Spring 2014

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