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

- B.S. Mathematics
- Minor in Computer Science
- Major GPA: 3.723

University of California, Berkeley, Berkeley, CA, USA   Sep 2014 – Jun 2015

- Concurrent Enrollment
  - CS 70: Discrete Mathematics and Probability Theory
  - EE 20: Structure and Interpretation of Systems and Signals
- Cumulative GPA: 3.33

Sierra College, Rocklin, California, USA   Sep 2011 – Jun 2014

- A.A. Mathematics
- A.S. Physics
- A.A. Fine Arts

PRESENTATIONS

- Poster: *Spectral Sequences and Higher Homotopy Groups of Spheres*
  UC San Diego Undergraduate Research Symposium   May 2018

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

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, time-series forecasting, 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
  - Developed server-side OpenGL 3D graphics engine and associated mathematical libraries.

CONFERENCES
ATTENDED

- University of Maryland Geometry Festival   May 2019
- Arizona Winter School: Topology and Arithmetic   Apr 2019
- UC San Diego Complex Algebraic Geometry   Jan 2019
- Witt Vectors, Deformations, and Absolute Geometry   Jun 2018

COURSEWORK

Graduate Coursework

- Algebraic Topology   Fall 2017 – Spring 2018
- Quantum Mechanics for Mathematicians   Spring 2017
- Functional Analysis   Fall 2016 – Winter 2017
- Algebra   Fall 2017

Undergraduate Coursework

- Cryptography   Winter 2018
- Numerical Methods and Physical Modeling   Fall 2017
- Image Processing   Fall 2017

- Applied Linear Algebra   Summer 2017
- Partial Differential Equations   Summer 2017
- Computer Vision   Spring 2017
- Complex Analysis   Spring 2017
- History of Mathematics (Hyperbolic Geometry)   Spring 2017
- Theory of Computation   Winter 2017
- Introductory Machine Learning   Winter 2017
- Discrete Math and Graph Theory   Winter 2017
- Design and Analysis of Algorithms   Fall 2016

- Number Theory   Summer 2016
- Advanced Data Structures   Spring 2016
- Knot Theory   Spring 2016
- Point-Set Topology   Winter 2015
- Mathematical Algorithms and Systems Analysis in Computer Science   Winter 2015
- Probability   Winter 2015
- Software Tools and Techniques   Winter 2015
- Combinatorics   Fall 2015
- Abstract Algebra   Fall 2015 – Spring 2016
- Real Analysis   Fall 2015 – Spring 2016

- Mathematical Reasoning and Proof   Summer 2015
- Vector Calculus   Summer 2015
- Structure and Interpretation of Signals and Systems   Spring 2015
- Assembly Programming (x86)   Spring 2015
- C++ Programming   Spring 2015
- Finite Mathematics and Linear Programming   Spring 2015

- Discrete Mathematics and Probability Theory — Fall 2014
- Structure and Interpretation of Computer Programs (Python) — Fall 2014

- Elementary Statistics — Summer 2014
- Introduction to Unix — Summer 2014
- Discrete Mathematics — Spring 2014
- Electrical Circuit Theory — 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