

Katherine Merkl

•University of California Santa Barbara
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Career Objective

I want to use my knowledge of mathematics to understand and explore.

Education

PhD in Mathematics (In Progress)

2018-2024

University of California Santa Barbara

M.A. in Mathematics

2018-2020

University of California Santa Barbara

B.S. in Mathematics

2014-18

Loyola Marymount University

B.A. in Theological Studies

2014-18

Loyola Marymount University

Budapest Semesters in Mathematics

Summer 2017

Introduction to Combinatorics
Introduction to Number Theory

Work Experience

Graduate Teaching Assistant at UCSB

Fall 2018-2024

I taught discussion sections every quarter for the past two years including summer sessions. So far I have taught Calculus I, II, Calculus for Life Sciences, Introduction to Proof Writing and Sequences and Series.

Research Experience for Undergraduates

June-July 2016

I worked with Dr. Brian Loft at Sam Houston State University. I did research in Morse Theory, Topology, Graph Theory, and Knot Theory. This research focused on connections between Morse functions, corresponding graphs, and related knots.

Math Tutor

January 2016-Present

Tutored students in different levels of Calculus



Research Assistant and Editorial Assistant

January 2015- December 2017

I worked with Dr. Amir Hussain at Loyola Marymount University. I did research in theological studies for a book titled "Muslims and the Making of America" which was published in 2016. I was an editorial assistant for the Journal of the American Academy of Religion.

Music Ministry Student Minister

September 2015- May 2018

Prepared music for liturgies at Loyola Marymount University in Sacred Heart Chapel.

Honors and Scholarships

LMU Math Scholarship

Loyola Marymount University

August 2015

LMU Arrupe Scholarship

Loyola Marymount University

August 2014- August 2017

James M. and Dorothy E. Deveny Scholarship

Loyola Marymount University

August 2015-August 2017

Mary Adams Mastrovich Scholarship

Loyola Marymount University

August 2015

Fredericks Fellowship Research Grant

Loyola Marymount University

November 2017

Shannon L. Hamm Award

Loyola Marymount University

April 2016

German 2 Award

Loyola Marymount University

April 2016

Membership in Pi Mu Epsilon

Loyola Marymount University

April 2017

Membership in Theta Alpha Kappa

Loyola Marymount University

April 2017

LMU's 2017 Putnam Team

Loyola Marymount University

December 2017

Putnam Exam Participant

2014-17



Skills

Computer Skills

I am trained in LaTeX, Mathematica, MatLab, Sage, Python, and Racket.

Communication

Through my experience as a Graduate Teaching Assistant at UCSB, I have learned how to communicate math in a way that is both clear and thorough. I pride myself on the positive reviews I have received from students who have truly succeeded and grown in my classroom.