# Elijah Valverde

San Francisco, CA — evalverde@sfsu.edu — (209) 955-9436

# **EDUCATION**

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# RESEARCH EXPERIENCE

Researcher | San Francisco State University

• Algebraic geometry, combinatorics	
• Research under Emily Clader (Ph.D.) on the enumeration of boundary strature	n in the moduli
space of genus-one curves.	
Researcher   Los Alamos National Laboratory   SULI	Summer 2024
• Gaussian process applications, aerosol science, climate modeling	
• Research under Allison Aiken (Ph.D.) and Ryan Farley (Ph.D.) exploring the application of	
Gaussian processes to identify temporal cycles in complex aerosol datasets	

Spring 2025

# AWARDS AND HONORS

Science Undergraduate Laboratory Internships (SULI) Scholar  • Issued by Los Alamos National Laboratory (LANL), United States Department of Energy	2024
<ul> <li>Best Poster Los Alamos National Laboratory Student Research Symposium</li> <li>Issued by Los Alamos National Laboratory (LANL)</li> <li>Awarded the best poster presentation in mathematics among students at LANL</li> </ul>	2024
Louis Stokes Alliance for Minority Participation Scholar  • Issued by California State University (CSU)-National Science Foundation (NSF)	2024
<ul> <li>Halmos Scholarship</li> <li>Issued by San Francisco State University Mathematics Department</li> <li>Awarded to accomplished graduate or undergraduate students who demonstrate a promi furthering the knowledge, application, or teaching of mathematics during their stay at SFS beyond</li> </ul>	
Pamela Fong Scholarship  ■ Issued by San Francisco State University Mathematics Department	2024
<ul> <li>C.Y Chow Memorial Scholarship</li> <li>Issued by San Francisco State University College of Science and Engineering</li> </ul>	2024
San Francisco State University General Scholarship  • Issued by San Francisco State University	2023
Vincent Constantino Scholarship  • Issued by San Francisco State University	2023
Deans List (Fall, Spring)  ■ Issued by San Francisco State University	2023
Deans List (Fall, Spring)  ■ Issued by San Francisco State University	2022

## PRESENTATIONS AND CONFERENCE ENGAGEMENT

## College of Science and Engineering Student Project Showcase

May 2025

• Planned poster presentation on current work with Emily Clader (Ph.D.)

#### Joint Mathematics Meeting (JMM)

January 2025

• Poster presentation on applications of Gaussian processes to high-time resolution aerosol datasets

#### Northern and Central California Section of SIAM Annual Meeting 2024 October 2024

- Poster presentation on applications of Gaussian processes to high-time resolution aerosol datasets
- Honorable mention for best undergraduate poster

## Los Alamos National Laboratory Student Research Symposium

July 2024

- Presented a poster on summer research related to applying Gaussian processes on high-time resolution aerosol datasets
- Won best poster among students in mathematics category

## COMMUNITY INVOLVEMENT

#### Vice President | Society for Industrial and Applied Mathematics (SIAM) 2024 - Current

• Serving as Vice President of San Francisco State SIAM Student Chapter. In collaboration with other officers, I coordinated research symposiums, career development events, and hosted talks from applied mathematicians in Industry and Academia. Recipient of the SIAM certificate of Recognition

## Mathematics Tutor and Embedded Tutor | San Francisco State University 2022 - Current

- Since my freshman year at San Francisco State, I have offered tutoring services in a wide array of topics including Calculus, Linear Algebra, Analysis, Abstract Algebra, and more.
- In Fall 2023 I worked on a program that placed tutors in classrooms with high rates of D's, F's and withdraws to increase student success.

# Teaching Assistant | Mathematics Department

2024 - Current

• Working as a grader for courses on real analysis and abstract algebra.