

# Curriculum Vitae

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## Jeremy Shahan

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<https://jeremysshahan.github.io/index.html>

### Education

**Master of Science, Mathematics, Louisiana State University**

**Bachelor of Science, Mathematics, Oregon State University**

Currently working toward a PhD in Mathematics at Louisiana State University under the guidance of Professor Shawn Walker

### Professional Employment

**Software Internship at EDT (Engineering Design Team)**

Worked with artificial intelligence on the Nvidia Jetson Nano platform. Trained a neural network to recognize and classify images.

Also worked on digital signal processing with the TACWRAP Vita 49 and uWrap Vita 49 to record and project FM broadcastings.

### Academic Employment

**Graduate Assistantship, Louisiana State University, August 2019 - Present**

Courses Taught: Problem Lab in Real Analysis, Calculus, College Algebra

TA for Courses: Graduate Level Real Analysis, Business Calculus

**Teacher's Assistant, Oregon State University, September 2018 - March 2019**

TA for Linear Algebra II

### Technical Skills

Familiar with the programming languages Matlab, Python, C++, C, and Javascript

Have experience with Digital Signal Processing

### Research/Teaching Areas of Interest

Interested in researching Applied Mathematics, Numerical Analysis/Approximations, the Finite Element Method, Linear Nonlinear Optimization/Control, Shape Optimization, Applied PDEs

Interested in teaching Linear Algebra, Numerical Linear Algebra, Discrete Mathematics

### Conference Talks

- *Shape Optimization with an Unfitted Finite Element Method*, SIAM Annual Meeting, Spokane, WA. (July 8, 2024)
- *Shape Optimization with an Unfitted Finite Element Method*, SCALA, Louisiana State University, Baton Rouge, LA. (January 19, 2024)

### Poster Presentations

- *Shape Optimization with an Unfitted Finite Element Method*, ICERM Workshop: PDEs and Geometry: Numerical Aspects, Brown University, Providence, RI. (March, 2024)
  - *Shape Optimization with an Unfitted Finite Element Method*, SIAM Texas-Louisiana Sectional Meeting, University of Louisiana at Lafayette, Lafayette, LA. (November, 2023)
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## **Academic Awards**

Louisiana State University 2022 Arthur K. Barton Superior Graduate Student Scholarship in Mathematics

Oregon State University 2019 Edward H. Stockwell Award - for excellence in mathematics

## **Positions Held**

President of the LSU SIAM student chapter

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