

# Alejandro Aguilar

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## ACADEMIC POSITIONS

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Rice University  
Graduate Student, Graduate Research Assistant  
Department of Statistics

May 2020-December 2021

University of Texas-Pan American  
Graduate Student, Graduate Research Assistant  
Department of Mathematics

November 2013-May 2014

## EDUCATION

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Rice University  
PhD in Statistics

August 2022

Rice University  
Master of Science in Statistics

December 2021

University of Texas-Pan American  
Master of Science in Mathematical Science

August 2014

University of Texas-Pan American  
Bachelor of Science in Applied Mathematics

July 2014

University of Texas-Pan American  
Graduate Certificate in Communication Training and Consulting

May 2011

University of Michigan-Ann Arbor  
Bachelor of Arts in Economics, Minor in German

August 2006

## PUBLICATIONS

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**Aguilar, A.** and Ensor, K. (2020) Topology Data Analysis Using Mean Persistence Landscapes in Financial Crashes. *Journal of Mathematical Finance*, **10**, 648-678. <https://doi.org/10.4236/jmf.2020.104038>.

## HONORS AND AWARDS

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National GEM Consortium Associate Fellow (August 2021-Present)  
Department of Defense SMART Semi-Finalist (2020)

## TEACHING EXPERIENCE

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Rice University  
Graduate Student, Graduate Teaching Assistant  
Department of Statistics

August 2017-May 2020

## **PROFESSIONAL SERVICE**

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### **Outreach and Mentorship**

- Google-Rice University REU in Data Science, Summer Mentor (May 2021-July 2021)
- Rice University-Freshman Math Mentorship, Mentor (September 2020-May 2021)
- University of Texas-Pan American, Experimental and Geometry Lab (EAGL), Volunteer Research Assistant/Volunteer Outreach Assistant (October 2013-April 2015)

### **Professional Memberships**

- American Statistical Association (2019-present)
- Society for Advancement of Chicanos/Hispanics and Native Americans in Science (September 2012-September 2014)
- Society of Industrial and Applied Mathematics (September 2012-August 2014)

## **OTHER EXPERIENCE**

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Sandia National Laboratories Intern - TITANS Software – R&D Graduate Year-Round	December 2021-Present
Pacific Northwest National Laboratory (PNNL) PhD Intern	June 2021-August 2021
NASA Johnson Space Center Summer Intern	June 2018-August 2018
IDEA Public Schools Student Information Systems Data Analyst	September 2015-August 2017