

David Mis

PhD Candidate

Department of Computational Applied Mathematics and Operations Research

Rice University, Houston, TX, USA

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Education

Rice University

2021–present

PhD, *Computational and Applied Mathematics*

Houston, TX, USA

Advised by Dr. Maarten de Hoop

University of Texas

2019–2021

MS, *Computer Science*

Austin, TX, USA

University of Texas

2009–2014

BS, *Computer Science*

BS, *Mathematics*

BA, *Economics and Chinese Language*

Austin, TX, USA

Publications

Conference papers

Semialgebraic Neural Networks: From roots to representations

May 2025

[SD Mis](#), M Lassas, MV de Hoop

International Conference on Learned Representations (ICLR) 2025

Singapore

Journal papers

Reduced mRNA secondary-structure stability near the start codon indicates functional genes in prokaryotes

2012

TE Keller, [SD Mis](#), KE Jia, CO Wilke

Genome Biology and Evolution, Volume 4, Issue 2, Pages 80–88

Talks

Measure flows in Bayes Hilbert spaces: Diffeomorphism invariance, optimal control, and flocking

Sep 2025

[SD Mis](#), MV de Hoop

Geo-Mathematical Imaging Group Partners Meeting, Rice University

Diffeomorphism invariant measure flows in Bayes Hilbert spaces

Jul 2025

[SD Mis](#), MV de Hoop

Applied Inverse Problems (AIP) 2025, Rio de Janeiro, Brazil

Semialgebraic Neural Networks: From roots to representations

Dec 2024

[SD Mis](#), M Lassas, MV de Hoop

Inverse Days, Oulu, Finland

Semialgebraic Neural Networks	Nov 2024
<i>Geo-Mathematical Imaging Group Partners Meeting, Rice University</i>	
Matrix-Recurrent and Semialgebraic Neural Networks	May 2023
<i>Geo-Mathematical Imaging Group Partners Meeting, Rice University</i>	

Teaching

Rice University	2021–present
<i>Grader / Teaching Assistant</i>	
Houston, TX	
Grader: Differential Equations for Science and Engineering, Partial Differential Equations I, Applied Functional Analysis, Numerical Analysis	
Graduate Teaching Assistant: Matrix Analysis	
The Art of Problem Solving	2020–2021
<i>Grader / Teaching Assistant</i>	
Virtual	
Various high school mathematics courses	
University of Texas	2011–2012
<i>Undergraduate Teaching Assistant</i>	
Austin, TX	
Courses: Computational Biology, Statistics for Biologists	

Research

Rice University	2022–present
<i>PhD Research Assistant</i>	
Houston, TX	
Geo-Mathematical Imaging Group (GMIG)	
University of Texas	2010–2012
<i>Undergraduate Research Assistant</i>	
Austin, TX	
Lab of Dr. Clause O. Wilke, Professor of Integrative Biology	

Software Development

David Mis Software LLC	2018–2021
<i>Software Developer</i>	
Houston, TX	
Independent software consultant	
Unaliwear	2015–2018
<i>Cloud Engineer</i>	
Austin, TX	
Principal architect of AWS infrastructure for consumer IOT device	
Hewlett Packard	2014–2015
<i>Software Developer</i>	
Austin, TX	
Enterprise software development	

Mentorship

Rice Data2Knowledge Capstone Project Mentor

Spring 2025

Rice University

NASA Orbital Transfer Project