

David Mis

PhD Candidate

Department of Computational Applied Mathematics and Operations Research

Rice University, Houston, TX, USA

david.mis@rice.edu · [GitHub](#) · [Google Scholar](#)

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

Teaching

Rice University <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	2021–present
The Art of Problem Solving <i>Grader / Teaching Assistant</i> Virtual Various high school mathematics courses	2020–2021
University of Texas <i>Undergraduate Teaching Assistant</i> Austin, TX Courses: Computational Biology, Statistics for Biologists	2011–2012

Research

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

Software Development

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

Mentorship

Rice Data2Knowledge Capstone Project Mentor

Spring 2025

Rice University

NASA Orbital Transfer Project