Matheus Kunzler Maldaner

M.S. Student (AI Systems + HCI)

I am a first-year master's student at the University of Florida in the M.S. AI Systems Program. I am passionate about **Neurosymbolic AI** and **Human-Computer Interaction**. My research spans Differentiable Logic Gate Networks at the Florida Institute for National Security, Auditing Text-to-Image Model Outputs at Carnegie Mellon University and Designing Longer Running Agentic Systems with the Microsoft Research AI Frontiers group.

- 📄 Resume
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Education

Aug. 2025 - Present

M.S. in AI Systems

University of Florida, Gainesville, FL
🏆 **UF Early Career HiPerGator Award**

Aug. 2021 - May. 2025

B.S. in Data Science

University of Florida, Gainesville, FL
Thesis: *Applications of Differentiable Logic Gate Networks*
GPA: 3.9/4.0, Summa Cum Laude
🏆 **UF Hall of Fame**
🏆 **UF Outstanding Scholars and Leaders Award**

Aug. 2017 - May. 2021

High-School Diploma

Marjory Stoneman Douglas High School, Parkland, FL
GPA: 4.0/4.0

Industry Research Experience

Summer 2025

Microsoft Research, Redmond, WA

Research Intern, AI Frontier Group

Mentor: Dr. Hussein Mozannar, Dr. Gagan Bansal, Dr. Adam Fourney

Worked on enabling Agentic Systems to perform longer running tasks, and on the development on SentinelBench.

Academic Research Experience

Summer 2024 - Present

Carnegie Mellon University, Pittsburgh, PA

Research Intern, Human Computer Interaction Institute

Mentor: Dr. Jason Hong, Dr. Motahhare Eslami, Dr. Kenneth Holstein, Wesley Deng

Developing tools to audit text-to-image models.

Fall 2023 - Present

Florida Institute for National Security (FINS), Gainesville, FL

Research Assistant, Neurosymbolic AI

Mentor: Dr. Damon Woodard, Dr. Domenic Forte, Dr. Olivia Dizon-Paradis, Stephen Wormald

Working on the application and optimization of Differentiable Logic Gate Networks.

Leadership Experience

Fall 2023 - Present

Data Science and Informatics (DSI) Organization, Gainesville, FL

President,

Overseeing an executive board of 30 students. Won the UF Student Organization of the Year Award.

Fall 2024 - Present

IEEE Signal Processing Society at UF, Gainesville, FL

Co-Founder & Vice-President,

Co-founded the UF chapter of the IEEE Signal Processing Society.

Fall 2024 - Present

UF AI Club, Gainesville, FL

Director of Research,

Leading the research initiatives for the UF AI Club.

Fall 2023 - Spring 2024 | **UF American Statistical Association (ASA) Chapter**, Gainesville, FL

Vice President,
Created a mentorship program to pair 60 students to mentors.

2018 - 2021 | **Marjory's Garden**, Parkland, FL
President,
Led Marjory's Garden organization during high school achieving 1000+ volunteering hours.

2020 - 2021 | **National Honor Society**, Parkland, FL
President,
Served as President of the National Honor Society chapter and delivered the Pledge of Allegiance.

2020 - 2021 | **Mu Alpha Theta Calculus Team**, Parkland, FL
Captain,
Led the Mu Alpha Theta Calculus competition team and hosted practice sessions.

Honors and Awards

2025 | UF HiPerGator Early Career Award

2025 | UF Gator Create 3 of 7 Tracks

2025 | UF Gator Hack 1st Place

2025 | Heidelberg Laureate Forum
1 of 200 young researchers selected to attend the annual Heidelberg Laureate Forum with Nobel Laureates and Fields Medalists.

2025 | Microsoft Intern Puzzle Day Fastest Solver

2025 | ITNG Best Student Paper Award

2025 | ITIAS Hack Space Con Scholarship
Received scholarship to attend Hack Space Con and tour Kennedy Space Center.

2025 | FGLSA Travel Support

2025 | UF CLAS Excellence Award Finalist
1 of 12 finalists for the College of Liberal Arts and Sciences Excellence Award.

2025 | UF Outstanding Leader Award

Recognized as 1 of 7 graduating seniors for outstanding leadership.

2025   **UF Student Organization of the Year**

Awarded as President of Data Science and Informatics (DSI).

2025   **UF Career Influencer Award**

2025   **REPU Scholar**

2025   **UF Hall of Fame**

Recognized as 1 of 25 students with the highest honor given to students at the University of Florida.

2025   **Summa Cum Laude Honors Thesis**

Completed honors thesis with distinction, unanimously approved with no revisions.

2025   **UF Outstanding Scholars and Leaders Award**

Recognized as 1 of 7 graduating seniors for leadership and scholarship.

2025   **UF Swamphacks X Best AI Hack**

For building a differentiable logic gate visualizer for better explainability.

2025   **ASA DataFest Best Visualization**

A weekend-long data analysis competition for students of any major.

2024   **UF Gator Create 2nd Place**

2024   **UF Gator Hack Most Popular**

2024   **ShellHacks Most Popular**

Florida's largest hackathon, a 36-hour event where students build new technology projects and compete for prizes.

2024   **FGLSAMP Scholar**

2024   **USCLAP 2nd Place Overall**

An international competition for undergraduate students to showcase their data analysis projects from their statistics courses.

2024   **NSF Travel Award**

Awarded travel funding to present first-author demo paper at HCOMP 2024.

2024   **Hispanic Scholarship Fund Scholar**

Selected as a scholar for the Hispanic Scholarship Fund.

2024   **UF Joe Glover Data Science Scholarship**

2024   **UF AI Scholar**

Offers undergraduate students a stipend of $1750 and the opportunity to collaborate in AI research.

2024   **UF University Scholar**

| 2024 | Apple Pathways Alliance Fellow |
| 2024 | ASA DataFest 1st Place |

A weekend-long data analysis competition where teams work to share insights from real-world data.

| 2024 | OSC Hackathon Best AI Hack & 2nd Place |

For developing a Discord bot that leverages sentiment analysis to keep track of server trends.

| 2024 | William G. Cross Award Finalist |

For excellence in scholarship, leadership, and service to the University of Florida.

| 2024 | FURC Travel Award |

To present a Neurosymbolic AI poster at the Florida Undergraduate Research Conference.

| 2024 | UF GenAI Arts Competition 2nd Place Overall |

A competition that celebrates the creative use of generative AI in various artistic domains.

| 2024 | UF Gator Hack III Most Popular Award |

For training and deploying differentiable logic gate networks onto FPGAs for low-latency inference.

| 2023 | UF Gator Hack II Finalist |

For developing AdapTree, an AI-powered educational tool that tailors learning based on a person's existing knowledge.

| 2021-2025 | Dean's Honor List |

For achieving a semester GPA of 3.75 or higher.

| 2021-2025 | Bright Futures Program Scholar |

Merit-based scholarship program that covers up to four years of full tuition for Florida residents.

Publications

6   **Magentic-UI: Towards Human-in-the-loop Agentic Systems**

Hussein Mozannar, Gagan Bansal, Cheng Tan, Adam Fourney, Victor Dibia, Jingya Chen, Jack Gerrits, Tyler Payne, Matheus Kunzler Maldaner, Madeleine Grunde-McLaughlin, Eric Zhu, Griffin Bassman, Jacob Alber, Peter Chang, Ricky Loynd, Friederike Niedtner, Ece Kamar, Maya Murad, Rafah Hosn, Saleema Amershi

Microsoft Research AI Frontiers (arXiv preprint). 2025.

🔗 Project   📄 PDF   📰 Blog   </> Code

C5 **Seeing Twice: How Side-by-Side T2I Comparison Changes Auditing Strategies**

Matheus Kunzler Maldaner, Wesley Hanwen Deng, Jason I. Hong, Ken Holstein, Motahhare Eslami

ACM CI. 2025.

🔗 Project   📄 PDF   👁 Preview

C4 **eXpLogic: Explaining Logic Types and Patterns in DiffLogic Networks**

Stephen Wormald, David Koblah, Matheus Kunzler Maldaner, Domenic Forte, Damon L. Woodard

ITNG. 2025.

🔗 Project   📄 PDF   🏆 Best Student Paper Award

C3 **MIRAGE: Multi-model Interface for Reviewing and Auditing Generative Text-to-Image AI**

Matheus Kunzler Maldaner, Wesley Hanwen Deng, Jason I. Hong, Ken Holstein, Motahhare Eslami

HCOMP. 2024.

🔗 Project   📄 PDF   👁 Preview

J2 **Abstracting General Syntax for XAI after Decomposing Explanation Sub-Components**

Stephen Wormald, Matheus Kunzler Maldaner, Kristian O'Connor, Olivia P. Dizon-Paradis, Damon L. Woodard

Springer AI. 2024.

🔗 Project   📄 PDF

1 **Efficient and Transparent Machine Learning: Exploring Applications of Differentiable Logic Gate Networks**

Matheus Kunzler Maldaner

Undergraduate Thesis, University of Florida. 2025.

🔗 Project

Press

Oct 2025	"UF's Maldaner mixes and mingles with global AI experts," UF Department of Engineering Education
Oct 2025	"FINS Team Wins 1st Place @ UF AI Days," Florida Institute for National Security
Jun 2025	"UF AI Scholar Matheus Kunzler Maldaner," University of Florida AI² Center
May 2025	"Matheus Kunzler Maldaner Biography," UF Center for Undergraduate Research
Jun 2025	"Knowledge Should Be Accessible To All," UF Research Computing
Mar 2025	"Parkland's Matheus Kunzler Maldaner Named to UF Hall of Fame," Parkland Talk
Apr 2025	"DSI Wins Org of the Year," UF Artificial Intelligence and Informatics Research Institute
Mar 2025	"UF AI Scholar Matheus Kunzler Maldaner inducted in the UF Hall of Fame," UF Artificial Intelligence and Informatics Research Institute
Sep 2024	"What has UF been doing with AI so far?," The Independent Florida Alligator
Apr 2025	"Third annual DataFest brings together students from across UF," UF Public Health & Health Professions
Nov 2024	"HCOMP 2024 - HCII coverage," CMU Human Computer Interaction Institute
Apr 2024	"A whirlwind of big data - DataFest 2024 recap," UF Public Health & Health Professions

Mentoring

2024	**Maryam Elfakir**
	Undergraduate Student
	Mentored as part of the Society of Hispanic Professional Engineers (SHPE) mentorship program.

Service

Organizer

Data Science and Informatics Symposium (**DSI Symposium**) at University of Florida 2025

UF AI2 Summit (**AI2 Summit**) at University of Florida 2025

Program Committee

Reviewer

ACM CHI Conference on Human Factors in Computing Systems (**CHI**) at ACM SIGCHI 2025

SEA Workshop @ NeurIPS (**SEA**) at NeurIPS 2025

AAAI/ACM Conference on AI, Ethics, and Society (**AIES-25**) at AAAI & ACM 2025

Institutional

IEEE EMBS at UF — Cancer/Mental Health Awareness Design-a-thon (Judge), October 2025

Member

2025 — Present	Association for Computer Machinery (**ACM**)
2024 — Present	IEEE Signal Processing Society (**IEEE SPS**)
2024 — Present	Institute for Electrical and Electronics Engineers (**IEEE**)
2024 — Present	ACM Special Interest Group on Computer-Human Interaction (**SIGCHI**)
2024 — Present	Association for the Advancement of Artificial Intelligence (**AAAI**)
2024 — Present	National Society of Professional Engineers (**NSPE**)
2023 — Present	Society of Hispanic Professional Engineers (**SHPE**)
2023 — 2024	American Statistical Association (**ASA**)

References

Dr. Damon L. Woodard, Professor; Director, Florida Institute for National Security

Florida Institute for National Security (FINS), ECE

University of Florida

ece.ufl.edu/people/faculty/damon-woodard

Dr. Jason I. Hong, Professor Emeritus
Human-Computer Interaction Institute
Carnegie Mellon University
hcii.cmu.edu/people/jason-hong

Dr. Hussein Mozannar, Senior Researcher
AI Frontiers
Microsoft Research
husseinmozannar.github.io

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Dr. Elizabeth Johnson, Associate Instructional Professor
Department of Statistics
University of Florida
stat.ufl.edu/people/faculty/