Stanford



Arash Hamzehlou

Graduate, Stanford Center for Professional Development

Bio

BIO

A graduate student at Stanford University, focusing on artificial intelligence for autonomous cyber-physical systems. Arash's current interests span embedded/edge AI for real-time systems including real-time inference and scheduling, resource-aware model optimization (quantization, pruning, distillation), and autonomous decision-making and control, including learning-based control and planning (MPC, safe/model-based RL, offline RL, POMDPs, TAMP, and world models). He is currently deepening broad AI studies while refining his research direction.

Arash’s professional background includes developing real-time, high-fidelity simulations and digital twins for NASA’s Space Launch System, spanning mission-critical hardware and RF communication subsystems. He plans to pursue a Ph.D. in Computer Science to build trustworthy intelligent systems that minimize human intervention across diverse real-world applications.

MS in Aerospace Engineering from University of Florida (2023)
Graduate Certificate in Engineering Innovation
BS in Computer Engineering from Minnesota State University (2020)

Projects:

• AI Classifier – 1st Place, UF AI Challenge: Created the most accurate classification algorithm among 60 teams.
• Few-shot CV Model – 3rd Place, US Navy Surprise Challenge: Developed a CV algorithm for novel class generalization.
• Geospatial Analyst – Designed and developed Rodinia, an AI agent capable of interpreting semantic context from satellite imagery by analyzing geological positions, physical characteristics, and temporal cause-effect patterns across terrain and infrastructure.
• Vision Navigator – Conceptualized and prototyped an early-stage navigation system for autonomous drones, enabling real-time pathfinding and localization solely through visual input from onboard cameras.
• Handheld SPICE Simulator: Built a portable SPICE-based device; placed 4th in Minnesota STEM challenge 2019.
• Phased Array Research: Conducted simulation research on phased array antennas using MATLAB.
• IoT Blood Pressure Monitor: Built a cloud-connected wearable device as a capstone project.