

AURORA

AI-driven University Research for
Orbital Resilience and Autonomy



Fall 2026 Seminar Series

NASA Langley Research Center
Oct 6th, 2026



USC Viterbi



Fall 2026 Seminar Series: “Customer Discovery!”

SEP 17 KICKOFF

What is AI in Space?

OCT 29 INFORMATION USAGE

NASA JSC Exploration Science, NODS

SEP 29 PROGRAMMING

NASA JPL Processing and AI

NOV 12 ROBOTICS

NASA JSC Software, Robotics and Simulation Division

OCT 6 STRUCTURES

NASA Langley Autonomous Integrated Systems Research Branch

DEC 03 STUDENTS

Lightning talks + Spring 2027 projects preview

All will be on ZOOM and in SGM 226, 5:30-6:20PM

Langley Speaker

Branch. His research spans deep reinforcement learning, generative AI, and knowledge representation, with applications in autonomous decision-making, robotic in-space assembly, and technical knowledge preservation. He serves as principal investigator for ALICE (AI-Leveraged Information Capture and Exploration), which combines large language models and knowledge graphs to capture, organize, and retrieve NASA's technical knowledge. His work also includes methods for evaluating trust and behavioral explainability in autonomous systems and applying deep learning to error detection in in-space and lunar assembly.

Mr. Ecker holds a Bachelor of Science in Computer Science from Florida Southern College and a Master of Science in Computer Science from the Georgia Institute of Technology. He is pursuing a Ph.D. in Computer Science at Old Dominion University. Before joining NASA, he held postbaccalaureate and graduate research positions at Los Alamos National Laboratory in the High Performance Computing and Intelligence and Space Research divisions.



Questions to Ask our Speaker

Recall: NASA's working definition for AI

Systems that can perform complex tasks normally associated with human reasoning, decision-making, learning, perception, planning or physical action.

- 1 What do you think AI is?**
- 2 What Example of AI are you doing Today?**
- 3 What example projects would you propose for a class in 2027?**

Next Seminar: October 29th, NASA JSC Exploration

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**COME HELP DEFINE AI,
IN SPACE!**



Seminars • Micro-projects • Spring 2027 course • Hardware • Potential flight

TODAY'S ASK

Ask a question. Join a seminar. Formulate a micro-project. Develop a new skill.

What should AI in Space become?