# Technical Talk Series

**AIAA** MID-ATLANTIC SECTION

## Hierarchical Reinforcement Learning for Air-to-Air Combat

April 6th  4-5 pm ET
Zoom Webinar details below

**LOCKHEED MARTIN**

## Abstract:

Artificial Intelligence (AI) is becoming a critical component in the defense industry, as recently demonstrated by DARPA's AlphaDogfight Trials (ADT). As a participant in ADT, Lockheed Martin developed a reinforcement-learning based F-16 autopilot that ultimately bested an expert human pilot. In this talk, we give an overview of the ADT program, dive into the details of our agent architecture, and also discuss how we see AI impacting the industry at large.

## Biography:

**Adrian Pope** is an AI research engineer at Lockheed Martin specializing in autonomous platform control; intelligence, surveillance and reconnaissance; electronic warfare; and small unmanned aerial system integration.

**Henry Diaz** is an AI research engineer at Lockheed Martin with several years of experience applying cutting edge ML/RL algorithms to classification, detection and control problems. He has experience building algorithms on HPC systems and deploying them on SUAS with low SWaP-C embedded HW payloads.

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**AIAA Mid-Atlantic Section**

Please send any questions, comments, or concerns to
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