Stanford

Duncan Eddy

Postdoctoral Scholar, Aeronautics and Astronautics

Bio

BIO

Duncan Eddy is a research fellow in the Stanford University Department of Aeronautics and Astronautics. He completed his PhD in Aerospace Engineering from Stanford, funded by the National Defense Science and Engineering Graduate Fellowship. His current research is focused on decision-making in safety-critical, climate, and space systems, where operational decisions must be made quickly and correctly in complex environments while still being explainable and understandable by human stakeholders.

He is currently the Executive Director of the Stanford Center for AI Safety, and a post-doctoral researcher with appointments in Mineral-X and the Stanford Intelligent Systems Laboratory (SISL).

Prior to this, He started and led the Spacecraft Operations Group at Capella Space, the first US Commercial Synthetic Aperture Radar Earth Imaging constellation. There he developed the first fully-automated mission operations system, realizing lights-out tasking-to-delivery of radar satellite data for a commercial constellation. He subsequently started and led the Constellation Operations and Space Safety Groups at Project Kuiper. Most recently, he was a Principal Applied Scientist at Amazon Web Services, where he worked on building software services for large-scale distributed edge compute applications.

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Stanford University , AA-PHD (2021)
- Master of Science, Stanford University , AA-MS (2015)
- Bachelor of Science, Rice University , Mechanical Engineering (2013)

STANFORD ADVISORS

- Mykel Kochenderfer, Postdoctoral Faculty Sponsor

LINKS

- Personal Website: https://duncaneddy.com/

Teaching

COURSES

2024-25

- Seminar on AI Safety: CS 521 (Spr)

Publications

PUBLICATIONS

- **Markov Decision Processes for Satellite Maneuver Planning and Collision Avoidance**
  Kuhl, W., Wang, J., Eddy, D., Kochenderfer, M. J., IEEE
  IEEE.2025

- **Optimal Ground Station Selection for Low-Earth Orbiting Satellites**
  Eddy, D., Ho, M., Kochenderfer, M. J., IEEE
  IEEE.2025