# REACT

Introductory Research
Experience in Autonomy and
Control

Creating aviation systems of the future with safe, trustworthy machine learning in the loop



### July 31-August 11, 2023

**Applications** 

Open: March 17th, 2023 Deadline: April 7th, 2023



**COMPETITIVE STIPEND** 

#### **HOUSING AND MEAL PLAN**

#### TRAVEL ALLOWANCE

## Program Description WHAT

- Intense undergraduate research experience to encourage students to consider careers in autonomous systems.
- Showcase interesting problems in aviation autonomy and machine learning.
- Describe pathways via grad school or industry to work in autonomous systems.
- Opportunity to contribute to research with leading faculty in autonomous systems at The University of Texas at Austin.

#### WHO

- UNM sophomores, juniors and seniors interested in autonomy-related fields.
- Underrepresented students are particularly encouraged to apply.

#### WHERE

• Students will conduct research in pairs at The University of Texas at Austin.

#### WLV

- Develop basic research skills.
- Obtain exposure to state-of-the art research and engineering facilities.
- Acquire preparation for graduate school.
- Learn about professional and research opportunities in autonomous systems, machine learning, and aviation systems.

#### **PROJECTS**

- Computation constrained computer vision.
- Translating linear temporal logic formulas into English.
- Applying Simple Secure Multi-party Computation to Feedforward Neural Networks.
- Evaluation the impact of curriculum design in goal-conditioned RL.
- Applying discontinuous neural network architectures to RL.

#### **FIELDS of STUDY**

- Computer Science
- Mathematics
- Statistics
- Electrical & Computer Engineering
- Mechanical Engineering
- Aerospace Engineering

#### For more information and to apply:

website: React.unm.edu email: react@unm.edu











