Systems Engineering Intern

Undergraduate or early MS

U.S. citizenship or green card required.

Background

The Space Launch System (SLS) State Analysis Model (SAM) team uses a model of the SLS to perform risk-reduction analysis of the vehicle software. The SAM team is part of the Mission & Fault Management (M&FM) team that designs the software algorithms. Using MATLAB and the associated Simulink and Stateflow toolboxes, the SAM team tests the algorithms before, during, and after they are implemented in flight software by the software developers. The algorithms to control the Exploration Upper Stage (EUS), which will be introduced in the Artemis IV mission, are currently under development by M&FM.

Responsibilities

- Assist with implementing EUS algorithms in SAM (likely in the Propulsion and/or Engine avionics areas)
- Design and run tests and provide feedback to algorithm developers
- Convert SLS SAM GUI from GUIDE to App Designer

Required Skills/Experience

- Extensive experience using MATLAB and Simulink
- General understanding of the differences between MATLAB and C syntax

Desired Skills/Experience

- Experience with the Stateflow toolbox in Simulink
- Experience with subversion
- Experience developing GUIs in GUIDE and/or App Designer