Robert Rothschild

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ABOUT ME

Experienced Systems Engineer with expertise in Aerospace and Software. Skilled at leading teams and leveraging software to increase efficiencies across all parts of a project.

Tools & Tech: VS Code, Git, NASTRAN, CAD, both Google and Microsoft software suites (Excel/Sheets, PowerPoint/Slides, etc...)

Programming Languages: Python, Matlab, Javascript, C++, SQL, HTML, CSS, JSON

EXPERIENCE

SYSTEMS ENGINEER - The Heliospace Corporation   Mar 2017 - July 2022 & Jan 2023 - Current

- Leading a team of engineers to model damage from Micro-Meteoroid and Orbital Debris on spacecraft hardware. Validating mirror and baffle models to test campaigns, then predicting hardware performance on-orbit.
- Leading a team of developers to build APIs that enable our engineers to work more efficiently. This includes managing multiple Git repositories, reviewing pull requests and ensuring version compatibility.
- APIs include tools for: project management, pre/post processing for models and analyses, integration and testing activities, and GUIs for engineers to interface with all these tools. These tools are build with web development techniques to enable these capabilities to be used in an expandable, big-data manner.
- Created algorithms to process test data and predict hardware safety for multiple acoustic, vibration, thermal, and other test campaigns.
- Defining requirements in accordance with NASA standards and practices. Statistically verifying these requirements using Monte Carlo and other analysis methods.
- Creating and presenting technical content to convey project details, technical information, and conceptual ideas.
- Oversee hardware I&T activities including: deployments, TVAC, and Vibe.
- Edited and crosschecked Electrical Interface Control Drawings.
- Built hyperspectral imagery testbeds to collect data and scripts for image processing.

Projects and Missions

- James Webb Space Telescope (JWST)
- Mars Sample Return (MSR)
- Roman Space Telescope (RST)
- Heliophysics Environmental and Radiation Measurement Experiment Suite (HERMES)
- Radar for Europa Assessment and Sounding: Ocean to Near-surface (REASON)

WEB DEVELOPMENT - Side Projects   **Spare Time: 2017 - Current**

- Enjoys working on extracurricular code projects including: my own website, stock trading automation, and other various projects to stay up to date on the latest web development tools

EDUCATION

B.S in Engineering - Fort Lewis College, Durango CO   **2013 - 2017**

AWARDS AND HONORS

- Member of the review board for Cal Poly Senior project.
- Best Obstacle Avoidance - Colorado Space Grant Consortium's Robotics Challenge
- Finalist - Hawk Tank Business Plan Competition - Fort Lewis College
- Sigma-Pi-Sigma Physics Honor Society Member
- Presenter at the 2015 AIAA Annual Rocky Mountain Technical Symposium
- Technology Award - Chaparral High School - Parker, CO
- Eagle Scout - Troop 469