

SUMMARY: Aerospace professional with over 24 years of experience in the implementation and management of spaceflight opto-mechanical hardware planning, development, build, and integration and test, with demonstrated expertise in:

- Assessing, defining, and implementing strategic system-level hardware solutions that meet all lifecycle and mission requirements, while optimizing cost, schedule, risk, and impact on all subsystems, reducing downstream anomalies and their impacts
- Managing subcontractors and cultivating partnerships to ensure that program goals are met
- Prescribing testing and fabrication/implementation processes/documentation which add value

RECENT PROFESSIONAL EXPERIENCE:

9/24-present **SETI Institute, Mountain View, CA**

Aerospace Engineer (Contract)

- Instrument Lead of the Multi-slit Solar Explorer (MUSE), a NASA Medium Explorer (MIDEX)
- Provide programmatic and technical support to the Extreme Ultraviolet High-Throughput Spectroscopic Telescope (EUVST), a Heliophysics Mission of Opportunity

6/21-9/24 **University of California, Berkeley, Space Sciences Lab, Berkeley, California**

Aerospace Manager 2

- Payload Manager of the Global Lyman- α Imager of the Dynamic Exosphere (GLIDE), an ultraviolet imager, a NASA Heliophysics Mission of Opportunity
- Project Manager of the Compton Spectrometer and Imager (COSI), a NASA Astrophysics Small Explorer (SMEX), from Site Visit through award and early Bridge Phase
- Provide programmatic and technical support during the formulation phase of FUEGO, a philanthropically-funded IR fire monitor of the western United States
- Provide programmatic and technical support for a philanthropically-funded Telescope Study

6/16-6/21 **Lockheed Martin, Advanced Technology Center, Palo Alto, California**

Research Engineer, Senior Staff

- Hardware and Integration & Test Lead on GeoCarb, an Earth Imaging IR spectrograph, a NASA Earth Ventures Mission, from Phase B through early Instrument build
- Program Manager of the Extreme Ultraviolet High-throughput Spectroscopic Telescope (EUVST) through selection, a NASA Heliophysics Mission of Opportunity awarded in December 2020
- Capture Manager on the NASA Heliophysics MIDEX Multi-slit Solar Explorer (MUSE), which was down-selected for a Phase A Concept Study, and eventually awarded
- Generate proposals, performing mission architecture trade studies, heritage assessments, and cost estimates, resulting in contract awards
- Develop performance and environmental test plans to qualify hardware
- Generate and manage flight instrument/satellite hardware configuration through delivery
- Manage subsystem leads and subcontractors in the development of GSE and flight hardware, ensuring that technical and programmatic requirements are met
- Perform system level trades, while optimizing technical and programmatic resources
- Provide Program Management support in staffing, planning, budgeting, and scheduling
- Generate subcontract specification and SOW documents, including structures, cryocooler system, Star Trackers, etc
- Interface with suppliers, evaluate quotes/proposals, and select suppliers
- Interface with Host provider in defining and documenting accommodation requirements
- Manage Internal Research and Development activities

10/13-6/16 **University of California, Berkeley, Space Sciences Lab, Berkeley, California**

Aerospace Manager 2

- Instrument Program Manager on the Ionospheric Connection (ICON) Far Ultraviolet Imager (FUV), a NASA Explorer Mission
- Responsible for FUV Instrument design, procurement, build, assembly, integration, and test
- Perform FUV Instrument assembly, responsible for all hardware configurations
- Manage subsystem leads, subcontractors, and vendors
- Manage the Instrument Bill of Materials and configuration control of the Instrument
- Generate all subcontractor Statements of Work for the Optics Package and manage the subcontracts

- Provide technical oversight and schedule and cost inputs to management
- Deliver and integrate FUV to the ICON Payload
- Generate and review build and test procedures, and Instrument/Payload level Interface Control Documents and project plans
- Implement stringent contamination control guidelines in material selection, parts processing, cleanliness monitoring, purge accommodation, and facility operations

8/08-10/13 **Lockheed Martin, Advanced Technology Center, Palo Alto, California**
Research Sciences Manager / Mechanical Design Engineer, Staff

- Provide design, heritage, and program planning input to the Interface Region Imaging Spectrograph (IRIS) Concept Study Report, a NASA Heliophysics SMEX awarded in 2009
- Manage the mechanical design of the IRIS Instrument, lead a team of analysts and engineers through Critical Design Review (CDR) and Instrument Integration
- Manage the build of the IRIS Instrument, resolve interface issues between all subsystems, and managed anomaly resolution
- Provide technical oversight, and schedule and cost inputs with respect to mechanical and integration and test activities
- Manage interfaces with Instrument subsystems, subcontractors, and the Launch Vehicle provider
- Procure, receive, and manage the integration of all opto-mechanical components
- Manage Instrument integration activities through delivery to the Spacecraft, subsequent Observatory configurations, and launch
- Interface with the launch vehicle provider to establish mechanical interface details
- Manage the design and build of Mechanical Ground Support Equipment
- Manage all critical hardware transports
- Mechanical and Systems Engineering Group Lead for the Solar Astrophysics Department, manage the staffing and performance appraisals of 20 engineers

8/07-8/08 **EI Solutions, San Rafael, California**
Senior Design Manager

- Manage commercial photovoltaic (PV) system contracts
- Manage sales requests, perform site surveys, and generate proposal layouts

9/00-7/07 **Lockheed Martin, Advanced Technology Center, Palo Alto, California**
Mechanical Design Engineer, Staff

- Mechanical Lead of the Solar Dynamics Observatory (SDO) Atmospheric Imaging Assembly (AIA), Solar-B/Hinode Focal Plane Package (FPP), and Demo Payload Program (DPP), managing the mechanical design, fabrication, assembly, and alignment
- Manage the system layout and top assembly of AIA, FPP, and DPP to ensure Mission performance within programmatic constraints
- Manage interfaces and serve as a technical liaison with subcontractors and customer
- Generate procurement documentation and interface with vendors to address manufacturability issues
- Interface with Electrical, Thermal, Science, et. al. disciplines to ensure requirements fulfillment; create and iterate designs in accordance with requirements
- Design, develop, and assemble flight components and assemblies
- Specify and coordinate testing to verify designs

EDUCATION:

Stanford University, Stanford, California

MS in Mechanical Engineering

Emphasis on Design for Manufacturability and Manufacturing Processes

Rutgers University, New Brunswick, New Jersey

BS in Applied Sciences in Engineering with Highest Honors

Emphasis on Materials and Biomedical Engineering