THADDEUS JONES

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6646 S Pennsylvania St, Centennial CO 80121

Space Systems Architect with nearly a decade of systems engineering experience and a Master's degree in space systems engineering. I lead engineering teams in designing spacecraft and solutions for complex deep space exploration missions. I have previously led the system engineering efforts for small satellite programs and have experience testing crewed deep space vehicles and missile systems.

EXPERIENCE

LOCKHEED MARTIN

SPACE SYSTEMS ARCHITECT, JUN 2022 - PRESENT

- Leading several large deep space exploration proposal efforts. As the lead architect I am:
  - Developing architectures for complex, multi-system deep space vehicles
  - Leading a team of engineers to develop performance budgets and the spacecraft models
  - Defining mission technical requirements and mission CONOPS
  - Capturing and performing system level trade studies
  - Identifying technical, cost, and schedule risks and mitigation strategies
  - Writing and presenting technical review packages to our NASA partners
- Developing the LM deep space smallsat strategy, defining growth areas and enabling technologies
- Leading an IRAD flight demonstration mission from concept through mission operations
- Won and now executing a DoD lunar smallsat mission as spacecraft lead
- Architected and delivered a proposal for a $1B NASA astrophysics probe RFP
- Designed a low-cost Mars lander solution as part of a JPL study

GENERAL ATOMICS

DEPUTY CHIEF ENGINEER, OCT 2021 – JUN 2022

- Led and reviewed the engineering efforts of a team of systems engineers, maintaining system budgets, requirement flow-down, and artifact generation.
- Defined system CONOPS during all phases of the mission (LEOP, operations, fault recovery, collision avoidance, deorbit).
- Managed the subcontracts to complete the design of a US Space Force (USSF) satellite.
- Presented the spacecraft architecture and technical design in milestone reviews to the USSF.
- Developed Monte Carlo simulations in Python to determine satellite constellation reliability.

LEAD SPACECRAFT SYSTEMS ENGINEER, JUN 2019 – OCT 2021

- Managed a spacecraft's system requirement specification, defining requirements, verification methods, approaches, and artifacts for each requirement.
- Wrote and delivered to NASA the Verification & Validation Plan, Telemetry Database, AI&T Plan, and Spacecraft Operations Plan for a spacecraft program.
- Developed the Interface Control Documents (ICDs) between the spacecraft and NASA payload.
- Led weekly technical working groups with the NASA customer.
- Presented the spacecraft architecture and technical solution in milestone reviews.
- Oversaw the development of a spacecraft simulator for delivery to NASA.

- Analyzed ground station contact duration in STK for a complex spacecraft/antenna geometry, and wrote scripts in MATLAB to interpret the data.
- Operated the OTB-1 spacecraft on-orbit, including during fault recovery

LOCKHEED MARTIN

SPACECRAFT SYSTEMS ENGINEER, DEC 2017 – JUN 2019

- Developed and tested Orion spacecraft mission cases, integrating spacecraft hardware and software in the lab.
- Wrote high quality test procedures, test reports, and discrepancy documentation to support all mission testing efforts for the Orion spacecraft.
- Scripted fault scenarios for the software and hardware using Python.
- Responsible for all mission entry tests and all Fault Detection, Isolation, and Recovery (FDIR) tests for the Artemis-1 mission.
- Conducted full Run-for-Record tests for NASA stakeholders to validate requirements.

SYSTEMS ENGINEER, JUN 2015 – DEC 2017

- Installed and tested the AEGIS missile system on destroyers in Japan and South Korea as the lead Weapon Control Systems (WCS) engineer.
- Led Change Review Boards with the Japanese and S. Korean Navies.
- Passed thousands of regression requirements for foreign and domestic AEGIS defense programs.
- Wrote new requirements, specification changes, and test procedures in DOORS.

EDUCATION

DEC 2020

MS - SPACE SYSTEMS ENGINEERING, JOHNS HOPKINS UNIVERSITY

Graduated with Distinction

Advanced Coursework in:

Spacecraft Design, Electro-Optical Systems, Space Environments, Propulsion systems

MAY 2015

BSE - MECHANICAL ENGINEERING & MATERIAL SCIENCE, DUKE UNIVERSITY

Advanced Coursework in:

Aerospace Structures, Thermodynamics, Fluid Mechanics, Materials Science, Control Systems

SKILLS

- **Engineering Software**: SolidWorks, MATLAB, Python, AGI STK, DOORS, SPICE, CAMEO
- **Computer Skills**: Unix/Linux, Microsoft Office, Atlassian Suite (Confluence, JIRA), Windchill
- **Security Clearance**: Inactive Secret

AWARDS

GENERAL ATOMICS SPOTLIGHT AWARD

From the GA Director of Space Systems for “Innovation and tireless execution of the mission”

ORION PROGRAM MANAGER’S COMMENDATION

From the NASA Orion Program Manager for “significant contributions to Orion Exploratory Mission 1”