

# BENJAMIN GRIMSLEY

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## PROFESSIONAL SUMMARY

Accomplished Senior Systems Engineer & Technical Leader with expertise in Model-Based Systems Engineering (MBSE), requirements development, and aerospace/defense system architecture. Proven track record of managing complex GN&C, VLEO, and autonomous systems for DARPA, US Navy, and USAF programs. Skilled in SysML, trade studies, risk management, and technical project leadership. Adept at collaborating across engineering, operations, and government stakeholders to drive mission success.

## WORK HISTORY

### **Jul 2023 – Present** *Senior Member of Technical Staff, Systems Engineering, Draper, Cambridge MA*

- Developing interface control documents and subsystem requirements for a Very Low Earth Orbit (VLEO) satellite supporting DARPA's Otter program. Applying Model-Based Systems Engineering (MBSE) approaches to design adaptable architectures for guidance systems used in US Navy programs including Conventional Prompt Strike and Trident.
- Led requirements analysis for the DARPA Otter VLEO satellite, supporting System Requirements Review (SRR). Developed 200+ traceable, testable system and subsystem requirements ensuring alignment with mission objectives.
- Authored Interface Control Documents (ICDs) and system models in support of VLEO mission design and payload integration.
- Applied SysML and MBSE methodologies to improve traceability, validation, and risk assessment for complex GN&C systems.
- Developed trade studies and system models for M-Code GPS receiver integration, addressing signal integrity, interface compatibility, and mission constraints.

### **Jun 2021 – Jun 2023** *Technical Project Manager, Boston Engineering Corporation, Waltham MA*

- Engaged US Navy autonomous vehicle community, developed user stories and captured use cases using SysML diagrams for automated anchoring software development using ROS2, delivered anchoring management software on-time and on-budget.
- Developed and lead 14 engineers an automated QA/QC system for Thermal Spray Coating on Navy flight decks. Used ROS2 to deliver platform-agnostic system for real-time evaluation of ISO roughness. Completed on-time and under budget by \$125K.
- Created project plans, defines tasks, manages resources, led the development of system models, requirements and interfaces. Anticipated potential issues, collaborated with stakeholders, marketing, and leadership to adapt to economic conditions.
- Supervised a multidisciplinary engineering team. Developed and tracked requirements, performed trade studies, functional analyses, and provided project management of a \$2.6M portfolio of R&D projects for America's warfighters.
- Led the model development and analysis to reduce the dry weight of an ROV used for tether management in explosive ordinance disposal, resulting in a 60% weight reduction and eliminating the need for a human technician in a mine threat area.

### **Jun 2019 – Jun 2021** *Captain, Program Manager, Integrated Base Defense; Life Cycle Management Center/ Hanscom AFB, MA*

- Managed 3 acquisition programs for 60+ stakeholders across the Air Force; responsible for QA & cost, schedule & performance
- Led \$783M Contract; evaluated 31 proposals for Force Protection Electronic Security, awarded 4 months ahead of baseline

### **Jun 2018 – Jun 2019** *1st Lieutenant, Launch Integration Program Manager; USSF Space Launch Delta 30/ Vandenberg SFB, CA*

- Managed end-to-end integration of small space launch for \$2B Western Test Range and launch ops across 4 expeditionary sites
- Led launch vehicle stacking operations at Cape Canaveral, FL for NASA's Orion Ascent-Absort 2 mission
- Oversaw Minotaur IV rocket booster processing activities & test range preparations for NROL-129 launch

### **Jun 2016 – Jun 2018** *2nd Lieutenant, Lead Facilities Systems Engineer; USSF Space Launch Delta 30/ Vandenberg SFB, CA*

- Supervised 3-member team & oversaw Modernization & sustainment projects for critical space launch facilities worth over \$70M
- Led \$622K HVAC project & managed facility schedule risk. Closed unit's #1 readiness issue, ensured spaceplane recovery

## EDUCATION & CERTIFICATIONS

### **Aug 2011 – May 2016** Rochester Institute of Technology

Bachelor of Science, Mechanical Engineering

### **Nov 2022 – Dec 2024** Johns Hopkins University

Master of Science, Systems Engineering

### **Aug 2017 –** Acquisition Professional Development Program

Program Management, Level II

### **Sep 2019 –** Department of Defense

Security Clearance: TS/SCI

## SKILLS

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|--|---|--|
| ▪ Model-Based Systems Engineering (MBSE)                     | ▪ Risk Management   | ▪ MATLAB & Simulink  |
| ▪ Requirements Development, Verification & Validation        | ▪ Earned Value Management                                     | ▪ C++, Python, Embedded Systems & Hardware-in-the-Loop (HIL) Testing |
| ▪ Interface Control Documents                                | ▪ DoD Acquisition, Government Contracting & Mission Readiness | ▪ Agile Development, Software-Defined Architectures                  |
| ▪ GN&C, Satellite, VLEO & Launch Vehicle Systems Engineering | ▪ Trade Studies, Architecture Development & Decision Analysis | ▪ Cross-Functional Team Leadership                                   |
|  | ▪ CATIA No Magic / MagicDraw                                  | ▪ Technical Project Management                                       |
|  |   | ▪ Field Deployment   |

## AFFILIATIONS

International Council on Systems Engineering – Program Management Institute – American Society of Mechanical Engineers – National Eagle Scout Association – Air Force Officers Association