

Ryan Sedghi Horton

Location

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PROFESSIONAL EXPERIENCE

Senior Mission Assurance Engineer | SES (formerly Intelsat), Long Beach CA

November 2024 – Present

- Develop and maintain a lightweight troubleshooting tool, reducing TT&C troubleshooting time from 30+ minutes to under 5 minutes, enabling faster decision-making for satellite controllers during critical satellite and ground station anomalies
- Overhaul SES's fleet-wide health reporting system by merging legacy Intelsat and SES formats, designing a dynamic VBA-driven interface to tailor outputs by stakeholder type, automating manual processes, and condensing multi-year reports into concise, error-checked summaries for executives and customer-facing teams
- Provide mission assurance oversight and fleet coordination for 78+ GEO satellites, supporting operations and engineering by leading readiness reviews, chairing FRACAS, and drafting key operational documents to improve organizational effectiveness
- Serve as product owner for the telemetry ingest system, coordinating with developers and satellite engineers to prioritize updates, resolve data issues, and ensure access to reliable telemetry for safe spacecraft commanding across the fleet
- Review emergency procedures for accuracy, clarity, and controller usability under time pressure while enforcing standardized terminology and ensuring instructions are clear and unambiguous during high-stress spacecraft anomalies

Project Engineer | Northrop Grumman, Commerce CA

March 2021 – October 2024

- Maintained a repository of 429 critical technical documents, including test procedures, reports, FMECAs, and manufacturing flow plans for spacecraft propellant tanks, supporting 54 diverse domestic and international programs
- Applied aerospace standards including AIAA S-080/S-081, ASTM, SAE, AWS, MIL, and AMS to ensure compliance and qualification of launch vehicle and satellite hardware
- Crafted and delivered 35 presentations to customer stakeholders, contributing to successful project milestones such as kickoff, EQSR, CDR, MRR, and TRR meetings
- Acted as a Technical Advisor for 257 export requests, ensuring compliance with export and import regulations (ITAR/EAR) while collaborating with international customers

Lead Engineer | USC Liquid Propulsion Laboratory, Los Angeles CA

January 2019 – May 2020

- Led a team of 46 engineers in the development of intricate bi-propellant rocket engines, feed systems, and ignition systems by managing task assignments, project schedules, external communications, and budgets to ensure smooth lab operations and on-time project milestones
- Aided in comprehensive testing (pressure, flow, static-fire) of a 10kN additively manufactured liquid bi-propellant rocket engine and analyzed test data, helping resolve anomalies to ensure the successful completion of engine testing campaign
- Spearheaded innovative lab sponsorship efforts and marketing strategies, securing over \$43,000 in corporate donations and \$50,000 in recurring university funding to expand lab resources and capabilities

Founder & Chief Executive Officer | RSH Industries, Los Angeles CA

September 2017 – December 2018

- Identified bid opportunities via meticulous contract requirement analysis, cost evaluations, and competitor assessments
- Oversaw contracts ranging up to \$35,000 in cost and generated bid packages for contracts reaching \$120,000 in cost
- Ensured contract compliance by managing product quality, delivery schedules, and communication with suppliers, fostering successful project outcomes

EDUCATION

M.S. Astronautical Engineering

January 2019 – May 2020

University of Southern California, Los Angeles CA

- 2020 Viterbi Master's Award (awarded for academic, leadership, and service achievements)

B.S. Mechanical Engineering, Minor in Manufacturing Engineering

August 2012 – May 2016

Worcester Polytechnic Institute, Worcester MA

CORE COMPETENCIES

Anomaly Resolution	Operational Coordination	Mission Engineering	Cross-Functional Leadership	Process Improvement
Orbital Mechanics	Spacecraft Propulsion	Technical Writing	Verification & Validation	Project Engineering