

# Ryan Sedghi Horton

## Location

Los Angeles, CA 90048

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## Personal Website

www.ryanhorton.com

## PROFESSIONAL EXPERIENCE

### **Senior Mission Assurance Engineer | S.E.S (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
- 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
- Prepare fleet-wide state-of-health reporting, distilling anomalies and orbital data into clear operational summaries for executives and customer-facing teams

### **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

### **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**

**August 2012 – May 2016**

Worcester Polytechnic Institute, Worcester MA

## LEADERSHIP & TECHNICAL PROJECTS

### **Lead Engineer | USC Liquid Propulsion Laboratory, Los Angeles CA**

**April 2019 – April 2020**

- Led a team of 46 engineers in the development of intricate bi-propellant rocket engines, feed systems, and ignition systems
- Managed task assignments, project schedules, external communications, and budgets to ensure smooth lab operations and on-time project milestones
- 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

### **Balerion Engine Testing**

**January – September 2019**

- Led comprehensive testing (pressure, flow, static-fire) for a 10kN additively manufactured liquid bi-propellant rocket engine
- Analyzed test data and assisted in resolving anomalies to ensure the successful completion of engine testing campaign
- Authored, updated, and reviewed assembly and test documentation to support safe and efficient operations

## CORE COMPETENCIES

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