Ryan Sedghi Horton

Location	Phone	E-mail	Personal Website
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PROFESSIONAL EXPERIENCE

Mission Assurance Engineer (Level 3) | Millennium Space Systems, El Segundo CA **January 2026 – Present**

- Serve as primary Mission Assurance Engineer for two satellite programs totaling ~20 spacecraft, independently assessing engineering changes, V&V artifacts, test updates, discrepancy dispositions, and technical deliverables to identify mission risk, challenge insufficient rationale, and support informed program decisions
- Initiated and executed a cross-program risk-management improvement effort by auditing 575+ engineering records, identifying nearly 200 traceability, mapping, and consistency issues, and developing Jira dashboards and tracking tools adopted by program teams to support ongoing cleanup
- Strengthened technical analyses across programs by identifying missing failure-mode evaluations, incomplete modeling, calculation discrepancies, and unsupported rationale, substantially rewriting the analyses, and driving additional engineering research and calculation updates prior to delivery
- Evaluated risk disposition for a purchased-part waiver by investigating industry and internal requirements, engaging design teams, and escalating overlooked payload and personnel hazards to support informed program risk management
- Serve as Mission Assurance point of contact for ground system matters, applying spacecraft operations experience to identify capability gaps, coordinate software-side expertise, and develop a roadmap to improve on-orbit operations

Senior Mission Assurance Engineer | SES (formerly Intelsat), Long Beach CA **November 2024 – January 2026**

- Developed and maintained 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 & ground station anomalies
- Overhauled 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
- Provided mission assurance oversight for 78+ GEO satellites, supporting operations and engineering by leading readiness reviews, chairing FRACAS, and drafting key operational documents to improve organizational effectiveness
- Served 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

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

Lead Engineer | USC Liquid Propulsion Laboratory, Los Angeles CA **January 2019 – May 2020**

- Led 46 engineers in developing bi-propellant rocket engines, feed systems, and ignition systems by managing 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**
Applications Engineer | Creaform 3D (AMETEK), Costa Mesa CA **October 2016 – September 2017**

EDUCATION

M.S. Astronautical Engineering **January 2019 – May 2020**
University of Southern California, Los Angeles CA

B.S. Mechanical Engineering, Minor in Manufacturing Engineering **August 2012 – May 2016**
Worcester Polytechnic Institute, Worcester MA