305 10th St S Apt 2109
Arlington, VA 22202

Joseph Gruber, PMP

813.756.4705
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Experienced Technical Leader with a Background in Systems and Software Engineering and a Successful Track Record for Driving Improved Performance through Continuous Improvement in Aerospace, Satellite, and Technology Projects

Motivated engineering manager providing over 15 years of multi-disciplined systems & software engineering, project management, and technical leadership in the aerospace and defense industry. Joseph offers a strong history of systems/software development and integration, risk management, technical direction, and project planning and control experience. Driven by a passion for achieving our nation's space exploration goals and the growing commercial space industry, Joseph thrives on seemingly impossible, challenging projects in collaborative, fast-paced environments. With a bias for action and strong aptitude, Joseph excels at team leadership, customer service, and innovative technical solutions. Throughout his professional career, Joseph has provided a diverse technical and business background bringing a keen understanding of NASA and Department of Defense requirements with a capability of conveying both technical and non-technical information to engineers and non-engineers alike. Highly regarded for his ability to interpret data into actionable information and a critical thinking mindset, Joseph's wealth of experience has allowed for improved project performance and execution on some of this country's most significant projects.

WORK EXPERIENCE

Project Engineer, Principal Systems Engineer - a.i. solutions (NASA) 2016 – present

NASA Earth Science Mission Operations (ESMO)

- Responsible for the technical and programmatic performance of NASA's earth science satellite Constellation Coordination System (C#, C++, AngularJS, FreeFlyer) and Flight Dynamics System (Node.JS, MATLAB, FreeFlyer) across the entire system development and product lifecycle. Developed and executed project management plan incorporating schedule, resources, risk, cost, quality, and configuration management.
- Provided technical leadership and project management support, across a large, multi-disciplined software engineering and system engineering team, for multiple spacecraft and mission systems projects.
- Led organization through Agile Scrum transformation on a flight operations ground system, championing and implementing new approaches to product development and engineering operations, resulting in improved customer service, on-time deliveries, and enhanced system performance.
- Identified opportunities for technical and business process improvements and instituted internal standards reflecting engineering best practices improving quality and efficiency through standardized workflows, mandatory peer reviews, and documented coding standards.
- Interfaced with internal and external teams to maintain an environment of technical excellence and customer service ensuring successful mission support. Established technical interchange meeting increasing communication between the engineering team and mission managers from multiple space agencies (JAXA, CNES, ESA, NASA, etc.). Integrated flight dynamics analysis team into system development lifecycle allowing increased collaboration, innovation, and communication.
- Established a comprehensive integration and test plan to conduct verification, validation, and readiness activities to support flight mission and spacecraft operations. Received Team Technical Innovation award for engineering process improvements, including implementation of test-driven development, continuous integration and automated testing resulting in an 87% savings in manual effort.
- Fostered a positive team culture of curiosity, collaboration, and mutually challenging team communication. Developed and mentored the engineering team, providing technical guidance and coaching, to enhance productivity, increased morale, and ensured team success.

Lead Planner – ECG, Inc. (NASA GOES-R) 2014 - 2016

- Provided cross-functional planning coordination across multiple contractors and federal agencies during deployment, integration, and verification & validation of disaggregate ground systems, including software systems, antenna hardware, and storage services, for the GOES-R earth science satellite system.
- Generated timelines for Launch and Orbit Raising (LOR) activities to verify on-orbit performance requirements and identified Post Launch Tests events to validate the operational readiness of mission products. Integrated with supplemental ground network stations to establish requirements for LOR.
- Identified gaps in existing operational processes and procedures. Documented best practices and project control methods ensuring compliance with flight project directives, policies, and regulations.

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- Supported chief engineer's office on flight readiness activities including performing and organizing mission readiness review, flight readiness review, and launch readiness review artifacts. Created program and project critical path analysis and contractor performance analyses in support of flight readiness.
- Developed custom metrics analysis toolset, including trend and variance analysis, providing for current and historical assessment of baseline performance, actual execution, and environment health assessment.
- Received GOES-R Process Improvement / Innovation Award for implementation of mission planning solution allowing for improved performance monitoring across ground and flight project segments.

Mission Support Lead – NASA (Hawaii Space Exploration Analog & Simulation) 2013 - Present

- Serve as mission support lead, in a volunteer capacity on the mission management team, recruiting and guiding 20+ experienced mission support team members on long-duration, isolated space simulations. Provide the primary interface to the crew participating in an analog human spaceflight simulation. Coordinator and monitor time-delayed mission operations, troubleshoot issues, and provide day-to-day operational support.
- Design and develop systems and tools (PHP, JavaScript, C++) to interface between the HI-SEAS habitat and mission support software. Provide technical expertise for distributed systems and network infrastructure along with troubleshooting of sensor, power, water, and other hardware at the habitat.

Lead Planner – Wyle (F-35 Joint Strike Fighter) 2012 – 2014

- Interfaced with project engineers, program managers, and program analysts throughout all phases of the system development life cycle for the F-35 Autonomous Logistics Information System (Java, C++, .NET) offboard mission support system.
- Witnessed and supported test event dry runs, hardware-in-the-loop simulations, and for the record validation exercises reporting results and metrics to senior project leadership and adjusting future test events as required.
- Conducted probabilistic risk assessments to model and determine the probability of completion of event milestones utilizing statistical analysis, including Monte Carlo simulations, to quantify technical and programmatic risks.
- Created an innovative, automated custom technical solution to allow for improved data analytics of multiple, extremely large data sets while reducing the time required, by a magnitude of multiple days, to analyze the supplier provided data.
- Mentored and led planning team, along with integrated project teams, through project schedule development, technical interchange meetings, integrated baseline reviews and program management reviews.

Technical Project Manager – CSC (Department of Defense) 2011 – 2012

- Managed engineering resources and led product development for a joint-agency communications and data transfer application (C#) and system. Responsible for the full engineering lifecycle including software and system requirements definition, design, development, test, and transition to operations and maintenance.
- Provided technical leadership between the project management office (PMO) and regional technical staff contributing as subject matter expert and ensuring communication of stakeholder priorities across multiple teams within a matrixed, multiple contractor organization.
- Reduced six-month schedule slip to an on-time product delivery by improving cross-functional team communication, including introducing a conflict resolution process across disparate teams, and standardizing teams on a single Agile methodology (Scrum).
- Performed requirements analysis and management, established configuration management processes, and developed technical integration plans for mission-critical information system projects across multiple federal agencies.
- Improved system engineering standards, guidelines, and best practices through the development of documented processes and procedures while mentoring staff in engineering best practices to improve productivity and efficiency.

Technical Project Manager – Self Employed (US Army, Department of Defense) 2010 - 2011

- Developed an on-premise and cloud-based infrastructure integration strategy, created initial system specifications, and documented level 1 requirements for the consolidation of over 1,200 worldwide data centers.
- Provided systems engineering and project management support for large-scale, global enterprise Active Directory migration and consolidation of over 250 sites and 850,000 users achieving an on-time initial operational capability (IOC) of 18 priority sites.
- Incorporated knowledge management system into engineering operations streamlining communications across staff and stakeholders while allowing for increased awareness of project documentation and lessons learned. Provided

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training to all levels of project management staff on the integration of collaboration tools throughout the system lifecycle.
- Communicated with multiple engineering teams spread across the globe to identify one-off disparities between locally operated environments, coordinating system modifications through the requirements definition and change control processes.
- Led project review meetings, monitored cost and schedule performance, and reported technical performance to senior leadership, customers, and stakeholders.

System Integration Engineer, System Engineer – SAIC, CTSC (Naval Station / Joint Task Force Guantanamo Bay) 2009 – 2010

- Coordinated with a geographically diverse team of network engineers and system engineers for operations and maintenance of complex, highly integrated technical environment. Performed system engineering and integration support and served as a technical adviser to the Joint Task Force (JTF) Future Operations customer.
- Engineered virtualized system architecture modernization solution utilizing Dell PowerEdge Blade hardware and VMware ESX overhauling legacy system architecture of multiple Windows Server and RedHat Linux servers reducing both network bandwidth and energy consumption for isolated location.
- Tested, verified, and validated network and system configuration upgrades before deployment and integration on unclassified and classified production networks meeting Department of Defense and Intelligence Community requirements. Implemented configuration control processes to establish system baseline and track requested modifications.
- Assisted in development of comprehensive technology infrastructure migration plans for relocation to alternative sites. Identified solutions to provide for quick synchronization and transfer of large amounts of data over bandwidth-limited satellite communications link.

System Engineer – Lockheed Martin Corporation 2005 – 2008

- Analyzed internal and external customer requirements to determine system and software solutions through automation and customized technologies. Evaluated and selected hardware and software to meet existing and proposed customer needs.
- Architected and implemented enterprise data center modernization including telecommunications, network, and system upgrades resulting in a reduced footprint, highly available, highly scalable virtualized environment. Developed system requirements, assessed alternative solutions, and managed cost, schedule, and risks for the enterprise-level project.
- Collaborated with technical engineers to design and implement a secure data transfer solution utilizing Apache Tomcat, meeting government requirements and reducing data bandwidth transfer. Conducted cost/benefit analysis to drive buy-in from senior stakeholders for a highly visible corporate project.
- Facilitated development of technical manuals, documented best operational practices and drove continuous improvement through enhanced business processes and system lifecycle project documentation.

EARLY CAREER:

***Senior System Administrator*,** Rissman, Weisberg, Barrett, Hurt, Donahue, & McLain, P.A. (2003-2005)

***Senior Technical Consultant*,** America Online (2001-2003)

EDUCATION

EMBRY-RIDDLE AERONAUTICAL UNIVERSITY
Master of Science in Aeronautics (Specializations: Space Studies, Aerospace Management)

FLORIDA INSTITUTE OF TECHNOLOGY
Bachelor of Arts in Business Administration, Computer Information Systems – Magna Cum Laude

CERTIFICATIONS

- Project Management Professional (PMP) – Project Management Institute
- Microsoft Certified Systems Engineer (MCSE: Messaging) – Microsoft

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PROFESSIONAL AFFILIATIONS

- Project Management Institute, Washington D.C. Chapter
    - Project Management Body of Knowledge (PMBOK) 5th Edition, Risk Management Content Editor
- American Institute of Aeronautics and Astronautics (AIAA) – SciTech Conference Social Media Chair
- AIAA National Capital Section (NCS) – Communications Committee
- International Council on Systems Engineering (INCOSE), Washington Metro Area
- Toastmasters, Project Management Institute Washington D.C. Chapter – President, Advanced Communicator, Advanced Leader
- Civil Air Patrol, United States Air Force Auxiliary – Captain; Communications Officer

TECHNICAL PROFICIENCIES

Systems: Microsoft Windows Server, Linux (Ubuntu, Red Hat), Mac OS X

Software: Atlassian (JIRA, Confluence, BitBucket), Microsoft Office (Word, Excel, PowerPoint, Access, Outlook), IBM Rational DOORS, Oracle Primavera P6, Oracle Primavera Risk Analysis (PRA), Microsoft Project, Microsoft SQL Server, MySQL, Mathworks MATLAB / Simulink, a.i. solutions FreeFlyer, AGI Systems Tool Kit (STK), Microsoft SharePoint, Xerox DocuShare, Gitlab, Github, VMware ESX

Languages: Python, JavaScript, PHP, HTML, CSS, Visual Basic .NET, Visual Basic for Applications (VBA), Bash