CALEB J. BALLARD

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EDUCATION

Master of Science, Software Engineering
University of Houston - Clear Lake, Engineering | May 2026

Bachelor of Science, Computer Engineering
University of Houston, Cullen College of Engineering | GPA 3.5 | May 2022

TECHNICAL SKILLS

Programming Languages: Python, C++, C, JavaScript, HTML, CSS
Tools & Technologies: Unity, GitHub, DOORS, MATLAB, AutoCAD, SharePoint, Linux
Certifications: ISS Command Certification - NASA

EXPERIENCE

Systems Test Engineer
KBR Inc, Houston, TX | September 2023 - Present
- Collaborating with NASA and international partners to capture system requirements and develop comprehensive test plans for Mission Control Center Systems (MCCS).
- Leading the creation and execution of detailed test procedures to verify MCCS functionality for Gateway, ISS, Starliner, and Orion.
- Executing system risk evaluation and supportability assessments through comprehensive regression testing, ensuring high-quality system performance
- Maintaining and updating test tools and scripts, leveraging DOORS for efficient project management and quality assurance.

Engineer I - NASA Flight Controller
KBR Inc, Houston, TX | June 2022 - September 2023
- Gained deep technical expertise in 1553 architecture, audio/video, UHF, S-Band, and Ku-Band systems for the International Space Station (ISS).
- Executed real-time problem solving, responding to CDH and C&T system failures, and refining interdisciplinary coordination.
- Developed front-end displays for Mission Control, enhancing operational efficiency and user experience.
- Collaborated on updating memory maps for Multiplexer Demultiplexers (MDM) on the ISS.

PROJECTS

3D Infinite Runner Game Development
Unity Game Engine | March 2024 - Present
- Spearheading the development of a 3D infinite runner game, utilizing Unity and C# to create an immersive gaming experience.
- Engineering player controls, obstacle avoidance mechanisms, and dynamic difficulty adjustments to enhance gameplay.
- Designing and implementing spawning mechanics for enemies and obstacles, ensuring balanced gameplay progression.