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# Frank Palmisano

Embedded Software Engineer

Innovative Embedded Software Engineer with 6+ years spearheading virtualization and automated testing solutions for NASA and ISS projects, consistently delivering multimillion-dollar savings. Specialized in designing robust, reliable software for mission-critical aerospace applications, with a proven record of optimizing performance, efficiency, and system reliability.

## Skills

**C, C++, C#, Java, Python, Assembly, Bash, Simics, LabVIEW, Git, JavaScript, typescript, React**

**Embedded Programming, RTOS, Unix, Linux, Microprocessors, Unit Testing, Virtualization, Asynchronous Programming**

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| Employment history **Embedded Software Engineer I – IIMay 2018 - Jun 2024**  ***Honeywell AerospacePhoenix, Arizona***  • Spearheaded the creation of embedded software in C/C++ utilizing Wind River Simics to fully virtualize NASA's Orion spacecraft display unit, significantly reducing issue resolution turnaround by 64% from weeks down to days. This initiative achieved cost savings exceeding $2.4 million for NASA and Honeywell, substantially improving software maintainability, reliability, and efficiency.  • Initiated the virtualization of ISS Multiplexor/Demultiplexer (MDM) test equipment using Unix and Linux operating systems.  • Created virtualized software driver code and test cases, version controlled with bitbucket and ClearCase. This reduced testing cycles by approximately 75%, decreasing from days to hours, substantially cutting operational costs and mitigating risk to expensive flight hardware.  • Created and optimized automated test software solutions using LabVIEW, C, and Python, directly reducing product testing time from 8 hours per unit to 3 hours per unit, resulting in a 62.5% improvement in production efficiency and throughput.  • Designed and conducted comprehensive training courses on Simics Fundamentals and Model Design across 14 sessions, educating engineers ranging from entry-level to Technical Fellows. Managed training teams effectively while concurrently executing core engineering responsibilities, enhancing overall team proficiency and reducing onboarding time.  **Software Development Engineer InternJul 2016 - Oct 2016**  ***Performance Software Corp.Phoenix, Arizona***  • Developed and implemented automated Python-based scripting solutions for avionics software testing on Northrop Grumman’s Blackhawk Helicopter project, increasing test execution speed by 45%, significantly reducing manual coding errors, and facilitating project completion two weeks ahead of the original schedule, ensuring early client delivery.  **Co-founder and Chief Technology OfficerDec 2015 - July 2016**  ***Life Jewel TechnologiesTempe, Arizona***  • Engineered and implemented an innovative Bluetooth Low Energy (BLE) based object recognition software solution using Objective-C and Swift with iBeacon technology. Achieved substantial improvements in mobile device battery consumption efficiency, earning the project a prestigious "Best in Class" award and securing a $10,000 development grant from Arizona State University to further product development.  **Customer Service AdvisorJun 2014 - Dec 2014**  ***Apple Inc.Tempe, Arizona***  • Delivered superior technical customer support services, consistently achieving a customer satisfaction rating of 99%, ranking in the top 4% nationally. Recognized with 16 Outstanding Customer Service Awards for rapid and effective resolution of complex technical issues, substantially improving customer experience, retention, and brand loyalty. Education **B.S., Computer ScienceMay 2018**  ***Arizona State University, Ira A. Fulton Schools of EngineeringTempe, Arizona*** |