Max Tacker

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Technical Skills and Certificates

Languages: C++, C, C#, Bash, Python, Ada, MATLAB
Development Tools: AdaMulti, MATLAB Simulink Embedded Coder, NXP Codewarrior
Version Control: Git, Serena Dimensions, SVN
OS and Tools: Linux, Green Hills Integrity-178 RTOS, Microsoft Office Suite
Buses and Interfaces: MIL-STD-1553, MIL-STD-1760, ARINC 429, CAN, Ethernet, RS-232, Link 16, SPI, I2C, UART
Networking: TCP/IP, UDP, Link 16
Systems Engineering Tools: IBM Rational DOORS, No Magic Cameo
Aircraft Certification: DO-178C, DO-254, MIL-STD-810

Experience

Senior Software Engineer, Lockheed Martin Corporation – Fort Worth, TX August 2024 – Present

- Led a team optimizing data-link sensor fusion algorithms for throughput-constrained legacy hardware
- Independently developed a critical cryptographic functionality under budget and ahead of schedule
- Demonstrated features regularly and clearly to stakeholders and leadership
- Wrote memory-safe and high quality object-oriented software in C++ intended for a Green Hills RTOS
- Integrated novel weapons and sensors using MIL-STD-1553 and ethernet communication
- As Linux power-user developed scripts and tools to automate build processes

Senior Flight Controls Software Engineer, Bell Textron, Inc – Fort Worth, TX January 2022 – August 2024

- Developed, integrated, and validated flight control software for multiple clean sheet fly-by-wire aircraft
- Utilized C and MATLAB Simulink with Embedded Coder to develop embedded flight control software
- Optimized critical FCC interfaces, refactored requirements through implementation and verification
- Performed system safety assessments and failure hazard analyses to ensure safe design decisions
- Daily experience working with hardware and developing software associated with flight control laws, avionics, electrical system, engine controllers, inertial sensors, air data, analog sensors, crew stations, and actuation devices
- Validated FCS software by directing flight test scenarios for pilots in a systems integration simulator
- Utilized DO-178C to inform the software requirements development process for flight controls software
- Developed strong teamwork and time management skills in order to meet program milestones

Systems Engineer II, Raytheon – Dallas, TX Mar 2021 – January 2022
Systems Engineer I Jun 2019 – March 2021

- Developed multi-threaded automated test software for mission computer hardware
- Designed, implemented, validated, and maintained software written in C, C++, and NI TestStand for acceptance, environmental stress, and vibration testing of UUTs
- Reverse engineered legacy software with little to no documentation
- Built strong communication skills required while working remotely
- Facilitated stand up for the team and performed light scrum master duties

Education and Certification

Baylor University, Waco, TX – BS in Electrical and Computer Engineering August 2015 - May 2019
Minor: Mathematics
Certification

- Private Pilot Certificate/Third Class Medical
- NCEES Fundamentals of Engineering (FE) Electrical and Computer, 20-301-67
- Valid Security Clearance