George Vine

(818) 808-5435 | george@vine.life | linkedin.com/in/georgehvineiv/ | vine.life

Experience

Lockheed Martin Advanced Development Programs — Palmdale, CA

Staff Software Engineer — *Oct 2023 – Present*

- Served as Product Owner for Vehicle Management Systems Platform Team for a large aircraft development program, responsible for several custom hardware platforms and associated FPGA IP and Board Support Packages (BSPs)
- Developed software applications for remote maintenance and debugging of embedded computer systems utilizing custom TCP protocols in C/C++ and Python that significantly increased the speed of firmware upload and improved developer experience
- Spearheaded initial bring-up of a new ARM SoC including toolchain integration, DevOps pipeline design, FPGA hardware design, and bootloader development
- Designed custom FPGA-based hardware accelerators in SystemVerilog, implementing digital communications protocols to include RS485/422, JTAG, and MIL-STD-1553
- Managed the sharing of internally developed technology with external projects and business areas, including hardware/software documentation, custom implementation design, and coordinating hardware/software deliveries in the face of competing project priorities

Senior Software Engineer — *Oct 2020 – Oct 2023*

- Served as chief software architect for a distributed, service-oriented mission planning and management application built on ActiveMQ and Kubernetes
- Prepared and presented numerous software demonstrations to internal stakeholders and third-party customers resulting in research and development funding

Software Engineer — *Jun 2018 – Oct 2020*

- Acted as avionics lead for a small unmanned aerial system development program
- Lead a team of 4 in all activities related to software development and hardware design, from initial design to flight in under 1 year

Associate Systems Engineer — *May 2017 – Jun 2018*

- Wrote and presented proposal content focused on hardware in the loop (HWIL) and sofware in the loop (SWIL) integration and test for a multi-billion dollar aircraft procurement program

NASA Jet Propulsion Laboratory (JPL) — Pasadena, CA

Software Developer (Academic Part Time) — *May 2015 – May 2017*

- Developed and maintained and Python-based automated test framework for a mission planning tool critical to the Cassini mission at Saturn

Education

Georgia Institute of Technology — Atlanta, GA

Master of Science in Computer Science, Focus in Computational Perception and Robotics — *Jan 2019 – Dec 2023*

Azusa Pacific University — Azusa, CA

Bachelor of Science in Computer Science — *Sep 2014 – May 2017*

Technical Skills

Languages/Libraries: C/C++, Python, Rust, SystemVerilog, Numpy, OpenCV, PyTorch

Subject Matter Areas: Systems Programming, Digital Design and Computer Architecture, Distributed computing, Hardware Integration, TCP/IP Networking, Machine Learning, Computer Vision

Tools: Git, JIRA, Gitlab, Vivado, Libero, Wireshark, Linux Development Environments, Eletrical Test and Measurement Tools