Kevin M. Garner

Software Developer

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I am an experienced software and spaceflight operations engineer with over 10 years experience. I am currently pursuing my MS in computer science part-time, online at Georgia Tech, where I am focusing on low-level computing systems and computer security. I have strong knowledge in C and C++, and have also used Rust and Python previously.

Skills

Tools and Languages	C, C++, Rust, Python, Linux, Git, LaTeX
Knowledge Areas	Cryptography, Operating systems, Parallel systems, Avionics

Technical Experience

Senior On-orbit Operations Engineer　　　　　　　　　　　　　　　　Apr 2021 — **Present**
Nanoracks, LLC　　　　　　　　　　　　　　　　　　　　　　　　　　*Houston, TX*

- Lead planning and execution of spaceflight payload operations
- Developed and executed test plans for software and hardware integration
- Planned new operations for Nanoracks Outpost program, utilizing spent upper-stage rockets for payload operations

Avionic Subsystem Manager　　　　　　　　　　　　　　　　　　Mar 2020 — **Apr 2021**
MRI Technologies　　　　　　　　　　　　　　　　　　　　　　　　　*Houston, TX*

- Lead team in embedded system software updates, including requirements development, verification testing, and code reviews for bare-metal C code
- Planned and executed troubleshooting and failure resolution of spaceflight avonic hardware and software

Operations Engineer　　　　　　　　　　　　　　　　　　　　　Jun 2012 — **Mar 2020**
Cimarron, Inc　　　　　　　　　　　　　　　　　　　　　　　　　　*Houston, TX*

- Lead multi-departmental team in creation of International Space Station flight software scripts, following NASA flight software development process for scripts that included fault detection algorithms and automated procedures
- Certified as an International Space Station flight controller, worked in NASA mission control. Monitored and operated International Space Station (ISS) avionics, communication, command, and data handling systems.

Education

M.S. Computer Science, *Georgia Institute of Technology*　　　　　　　　　　　exp. Dec 2023
B.S. Electrical Engineering, *Louisiana State University*　　　　　　　　　　　　　　May 2011

Projects

MapReduce in C++ with gRPC
Length extension attack on SHA-1 in Python
Simple, multi-threaded distributed file system in C++ with gRPC
Shamir's Secret Sharing scheme in Rust

Awards

Integrated Mission Operations Contract Excellence Award	2019
NASA Flight Operations Directorate (FOD) Director's Award	2015
NASA Spaceflight Awareness Team Award	2014