Majok Francis Ring

majok.ring3@gmail.com
www.linkedin.com/in/majok-r-4b1936110
www.majokring.com
Security Clearance: Active Secret **| Citizen: US**, Mobile: (858) 925-3768

EDUCATION

University of California, Merced May 2018 B.S Computer Science and Engineering GPA: 3.06

Relevant Courses: *Data Structures – Computer Algorithms – Database Systems – Computer Architecture – Object Oriented Programming – Discrete Math – Computer Networks – Network Security*

TECHNICAL SKILLS

- Programming Skills– **Python, C, C++, Ada, VB.NET, MATLAB, JavaScript, HTML, CSS, SQL, OpenGL, Java, Android Dev** Other skills – Linux, Git, Android Studio, Photoshop, Illustrator, After Effects, Autodesk
- RTOS Experience– **Green Hills Integrity**, **VxWorks**

EXPERIENCE

Software Engineer, Northrop Grumman Space Systems – (*Python, C, C++)* **July 2022 – March 2023**

- Develop tools for Satellite Systems and integrate software changes into NGGSTE (Special Test Equipment) codebase.
- Establish changes based on Spacecraft Simulator software and various simulators which also process telemetry packets, manage networking processes, and are run on real hardware in a lab environment.

Software Engineer, Raytheon – (*Python, C, C++, Ada, C#, Green Hills Integrity, VxWorks)* **January 2019 – May 2022**

- Develop tools and write embedded software for airborne radar systems for several programs. Work with designated teams to detect hardware failures and design software/testing procedures to address critical areas.
- Debug module specific changes corresponding to lower-level networking TCP/IP connections and ensure data transport/messaging pathways are timely and accurate.
- Wrote an internal tool to solve mission file development issues and simplified development wait times from days to minutes and incorporated my tool into the DevOps pipeline to auto generate these mission files on a nightly basis. Trained current and new engineers in the RSIL (Radar Systems Integration Lab) to use my tool and developed an accompanying GUI for ease of use which received awards from leadership for program impact.
- Maintain and optimize legacy systems dealing with radar Built-In-Tests (BIT) and monitor performance to align with program requirements/customer contract specifications.
- Experience in Radar Systems Integration Lab working with real radar hardware. Able to load and test development software builds on APG-79/APG-82 radars and communicate with RSIL lab technicians to modify hardware for mode compatibility and further testing.
- Conduct code peer reviews and write accompanying documentation/design presentations for software changes and communicate with engineering board for change approvals.

JPL Software Development Technical Intern, MESA Lab – (*Qt, C++, JavaScript)* **January 2018 – May 2018**

- Worked with the UC Merced Mechatronics, Embedded Systems and Automation (MESA) Lab in developing a UI to control a methane sniffing drone to create/plot a map of key areas of interest and record and analyze flight data.
- Presented my developments on the updated UI and software to panel of industry executives, faculty researchers, and students. Explained purpose, potential outcomes, and future plans; Drone swarming

COMPUTER SCIENCE RELATED PROJECTS

TCP Congestion Control Visualizer - Web Application **December 2017 – January 2018**

Personal Project – (JavaScript, HTML, CSS)

https://www.majokring.com/TCP-Congestion-Control-Visualizer

- Engineered a graphical web application to simplify the analysis of AIMD/Slow Start TCP Congestion Control methods.
- Employed VARK Modalities (Visual, Aural, Read/write, and Kinesthetic sensory) to develop an interactive visual based learning tool for computer networking students to understand and numerically solve congestion control problems.

Piano Visualizer Board **November 2021 – Present**

Personal Project – (C, C++, Embedded Programming)

- Developing hardware/software on ESP32 chip for displaying notes on interactive portable display module.