Christopher Rook

github.com/crookplusplus | linkedin.com/in/chris-rook | crookplusplus@gmail.com | (909) 276-0379
Redondo Beach, CA | Open to Relocation

SUMMARY

Recent CS graduate with a keen interest in Full-Stack Development offering hands-on experience building dynamic, responsive MERN web applications to develop complex application solutions through collaborative teamwork and a passion for continuous learning. Ready to leverage my skills and enthusiasm in a Full Stack Developer role.

EDUCATION

San Diego State University   **San Diego, CA**
Computer Science / B.S.   Aug, 2023
- GPA: 3.74
- Graduated Cum Laude

RELEVANT COURSES

Data Structures and Algorithms, Computer Architecture, Machine Learning, Computer Vision, Operating Systems, Computer Security, Database Theory and Implementation, Linear Algebra, Discrete Mathematics, Applied Statistics, Physics with Honors

WORK EXPERIENCE

Unmanned Aerial Vehicle Maintenance Lead / UAV Operator   **San Diego, CA & Deployed**
U.S. Navy   Dec 2018 - Dec 2019
- Responsible for Maintaining 20 MQ-27 ScanEagle aircraft and $23.3M of support equipment
- Oversaw the performance and documentation of 1,523 maintenance actions and two maintainers across 20 ScanEagle Aircraft
- Flew the MQ-27A and the MQ-27B ScanEagle platforms for a total of 298 flight hours in support of CENTCOM Operations
- Led the first transition from MQ-27A Analog ScanEagle to MQ-27B Digital ScanEagle in the CENTCOM Area of Operation

Production Supervisor   **Kaneohe, HI**
U.S. Navy   May 2014 - Jan 2016
- Delegated daily production workload to 23 Marines and Sailors in support of three Naval and two Marine squadrons
- Supervised four separate workcenters in the timely repair of radar, communication and electronic countermeasure equipment
- Inspected the completion of 1,018 maintenance actions on radar, communication and electronic countermeasure equipment
- Directed the calibration scheduling of 3,551 calibrated assets and led the monthly inspection of six squadrons asset inventory

PROJECTS

Agent List Generator Web App (MongoDB, Express.js, React, Node.js, Passport.js, TailwindCSS, HTML, Javascript)
- Developed a responsive and dynamic MERN web app that interfaces with a third-party RESTful API that uses data from Realtor.com to generate Real Estate Agent contact information for Loan Officers' marketing efforts.
- Implemented robust user authentication and session management with Passport.js and JSON Web Tokens (JWTs), ensuring secure user access with session expiry, with refresh, and encrypted user data while using a Docker container for MongoDB.
- Created RESTful API endpoints for users, allowing for the creation, retrieval, updating, deletion and download of agent contacts.
- Enabled loan officers to efficiently track their interactions with agents, edit, sort and download agent contacts and lists of agent contacts, providing a useful web-based tool for loan officer marketing campaigns.

Concurrent Prefix Search (C++)
- Created a Prefix Tree (trie) of pointers built from words read in from an eBook input text file.
- Leveraged multithreading and mutex locks to allow concurrent processing between a thread that reads in words from a text file and a thread that counts the number of prefix occurrences for the word while ensuring data integrity and avoiding race conditions.

Simulated CryptoBroker (C++)
- Created a simulated crypto broker built off of a producer-consumer multithreaded scheme with data shared between the threads.
- Utilized semaphores for mutex locks and a bounded buffer to avoid deadlocks and race conditions.
- Applied semaphores for thread synchronization for program efficiency and execution.

Languages: C++, Python, Java, JavaScript, HTML, CSS, SQL, Arduino
Technologies: Git, React, Express.js, Django, Passport.js, Express.js, Postman, MongoDB Compass, VIsual Studio Code, Docker, IntelliJ IDEA, MongoDB, Eclipse, Linux/Unix