

Ronny N. Ismael

ronnyismael@gmail.com | (209) 614-9525 | ronnyismael1.github.io | linkedin.com/in/ronnyismael

EDUCATION

Bachelor of Science in Computer Engineering

Graduation May 2024

San Jose State University | San Jose, CA

Certification: Cybersecurity

Coursework: Object-Oriented Concepts, Assembly Language Programming, Algorithms & Data Structures Design, Intro to Circuit Analysis, Digital Design I-II, Advanced Algorithm Design, Microprocessor Design, Computer Networks I, Compiler Design, Computer Architecture and Design, Operating Systems, IoT Platforms, RT Embedded CoDes, Database Systems I, Information Security

Associate in Science in Mathematics & Physics

Graduated May 2021

Modesto Junior College | Modesto, CA

Coursework: Problem Solving/Programming, Calculus I-III, Linear Algebra, Differential Equations

WORK EXPERIENCE

Engineering Technician | Nextest division of Teradyne

July 2022 - Present

- Engaged in system-level debugging, troubleshooting, and repairs of semiconductor testing systems.
- Managed record retention, international logistics, and data integrity for Magnum systems, employing SQL for database management and creating data analysis and automation scripts.
- Developed a React Native application using JavaScript and Expo Camera for QR code scanning, streamlining board repair and inventory management, integrated with Firebase Firestore for real-time data persistence
- Implemented state management in dynamic applications using React Hooks, and designed UI/UX with custom React Native stylesheets, adhering to responsive design principles.

Robot Technician | Starship Technologies

Sep 2020 - June 2022

- Served as the primary point of contact for Mountain View and Intuit operations, managing app support and leading teams through expansion projects, marketing events, and menu configurations.
- Utilized Python in Linux environments, employing SCP and SSH for secure data transfer and remote system management, to ensure optimal performance of the autonomous robotic fleet through rigorous debugging and hardware diagnostics.
- Specialized in complex PCB repairs and operations, including Raspberry Pi, ELMOs Controller PCBs, and TEGRA PCBs, integrating IoT principles for robotic functionality and using Jira, Confluence, Excel, and MRPeasy for project tracking and inventory management.
- Developed technical documentation on AMD and TEGRA components, employed sensor calibration techniques for precision in robotics, and managed staffing and scheduling leveraging project management skills.

PERSONAL PROJECTS

Advanced RAM Module Design | Verilog, Quartus Prime, ModelSim

- Engineered and simulated single, dual, and true dual-port RAM modules in Verilog, demonstrating advanced hardware design skills.
- Utilized Quartus Prime for design and ModelSim for simulation, ensuring precise and functional module implementation.
- Achieved successful data storage and retrieval operations, validating the efficiency and reliability of the designed RAM modules.
- Developed comprehensive testbenches for each module type, showcasing thorough testing and validation abilities.

Persistent Linked List with Memory-Mapped Files | C, Dynamic Memory Management, Linked Lists

- Developed persistent linked list in C, showcasing system calls, memory-mapped file management.
- Implemented efficient file I/O operations and dynamic memory handling using C standard libraries.
- Designed custom data structures with error handling and user-friendly CLI for operational effectiveness.

Concurrent Word Frequency Counter | C, pthreads, GCC, Valgrind, VS Code, Git, GDB

- Developed a multithreaded application in C, utilizing the POSIX threads library (pthreads) for concurrent processing of large text files.
- Implemented custom hash table for efficient word count tracking, demonstrating understanding of data structures and algorithms
- Utilized mutexes and condition variables to ensure thread-safe operations on shared data structures, showcasing proficiency in concurrent programming and synchronization primitives.
- Employed dynamic memory management in C, including the use of malloc and free, to handle data storage, demonstrating a solid grasp of memory management concepts.

TECHNICAL SKILLS

Hardware Description Languages: Verilog, SystemVerilog

Programming Languages: C, C++, Python, Java, JavaScript, HTML, CSS

Software Development: React Native, VBA, Quartus Prime, Vivado

System Tools: Linux (SCP, SSH), Git (Version Control), Jira (Project Management), Confluence (Documentation Management)

Core Skills: Debugging, Troubleshooting, Task and Workflow Optimization, Project Management, Team Leadership