

# Mausam Parajuli

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## EDUCATION

### Jacksonville State University

Jacksonville, AL

MS in Computer Systems and Software Design (GPA: 3.9)

Graduation Date: Dec 2023

- Technical Expert at the Association for Computing Machinery Southeast Conference 2023.
- Teach “*Introduction to Information and Technology*” course to undergraduate students.

### Jacksonville State University

Jacksonville, AL

BS in Computer and Information Sciences (GPA: 4.0, Minor: Mathematics)

Graduation Date: May 2022

- Full-Ride Scholar, Computer Science Club, Summa Cum Laude Honor, Ambassador, Orientation Leader.
- Awarded “*Best of Showcase*” among 50 participants for presenting research on “Using Z3 Constraint Solvers to Solve Systems of Equations and Puzzles” at Jacksonville State Annual Symposium 2022.

## SKILLS

**Languages:** Java, Python, C++, HTML5, CSS, JavaScript, R, Object-Oriented Programming

**Frameworks/Libraries:** React.Js, Node.Js, Nest.Js, Spring, Bootstrap

**Technical:** MongoDB, SQL, Git, Docker, Podman, Linux, Raspberry Pi, Virtualization, Jira, MS Office

## WORK EXPERIENCE

### Jacksonville State University

Jacksonville, AL

Graduate Research Assistant

Aug 2022 – Dec 2023

- Successfully presented research paper titled “*Performance Evaluation of the Docker Technology on Different Raspberry Pi Models*” at the 5th International Electronics Communication Conference (IECC 2023) in Osaka, Japan and awarded “*The Best Presenter Award*”. [Click me to read the paper](#)
- Conducted empirical tests on 5 Raspberry Pi models to evaluate Docker's applicability on these SBCs, identifying critical performance factors, such as memory capacity and network bandwidth.
- Co-authored an 18-page research paper titled “*Performance Evaluation of the KVM Hypervisor Running on ARM-Based Single-Board Computers*” published in the prestigious International Journal of Computer Networks and Communications. [Click me to read the paper](#)
- Analyzed and tested **ODROID-N2+** and identified it as a superior performer over **Raspberry Pi 4 Model B**, with ODROID-N2+ roughly twice as fast as Raspberry Pi 4 in several benchmarks.

### Jacksonville State University

Jacksonville, AL

Research Lab Assistant

Jan 2020 - May 2022

- Developed and implemented Linux scripts to automate experimental procedures and conduct diverse benchmarks assessing CPU, memory, disk, and network TCP/UDP throughput.
- Configured and maintained a range of hardware, including single-board computers (SBCs) such as Raspberry Pi, Odroid, and routers, ensuring seamless operation and optimal performance for research experiments.
- Demonstrated expertise in installing and configuring various Linux and Windows operating systems, adapting configurations to meet specific research requirements, and troubleshooting system issues effectively.
- Spearheaded the setup and firmware upgrades of routers using DD-WRT, enhancing network security, stability, and performance.
- Engineered a Faraday cage to reduce network interference, minimizing external electromagnetic influences.

## PROJECTS

### My-Portfolio-React (Live Demo: [My-Portfolio](#))

- Developed a responsive personal portfolio using **React JS** to showcase background, skills, and services offered.
- Used **Git** for version control and deployed the project using GitHub pages with 0 incidents reported.

### Park-A-Lot

Project Manager

- Engineered a web-based parking system using **React JS** on **NestJS** server, reducing management time by 50%.
- Managed a team of 5 developers and collaborated with the client to deliver regular progress reports, providing updates on project status, and identifying areas for improvement, resulting in a 100% client satisfactory rate.