# **Mausam Parajuli**

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**EDUCATION**

**Jacksonville State University Jacksonville, AL**

*MS in Computer Systems and Software Design Expected Graduation Date: December 2023*

* Technical Expert at the Association for Computing Machinery Southeast Conference 2023.

**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 August 2022 – Present*

* 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**](https://dl.acm.org/doi/10.1145/3616480.3616485)
* 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**](https://aircconline.com/abstract/ijcnc/v15n2/15223cnc08.html)
* 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 January 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, ensuring the integrity of experimental data by minimizing external electromagnetic influences.

**PROJECTS**

**My-Portfolio-React (*Live Demo:*** [**My-Portfolio**](https://mparajuli.github.io/my-portfolio-react/)**)**

* 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.