# **Mausam Parajuli**

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**EDUCATION**

**Jacksonville State University Jacksonville, AL**

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

* President of AlgoSolvers Club, President’s List.

**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, Game Maker Language, Object-Oriented Programming

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

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

**WORK EXPERIENCE**

**Jacksonville State University Jacksonville, AL**

*Graduate Research Assistant August 2022 – Present*

* 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.
* Conducting research to assess the feasibility of utilizing containerized virtualization tools such as ***Docker*** and ***LXC/LXD*** in modern single-board computers, with the aim of identifying their potential as superior alternatives to traditional virtualization methods. Achieved over 50% reduction in performance overhead.
* Performing a security and resource consumption evaluation of Docker containers by running series of tests to simulate different types of attacks and load conditions on 3 different series of Raspberry Pi.

**Internal Drive Tech Campbell, CA**

*Summer Bootcamp Instructor May 2022 - August 2022*

* Designed interactive activities and hands-on projects to foster student engagement and participation by leading 120+ student teams in the development of web applications and games, resulting 100% success rate.
* Mentored students in game design and programming using ***JavaScript***, ***Java***, and ***Python*** and facilitated hands-on learning experiences resulting in a 92% student satisfaction rate.

**Jacksonville State University Jacksonville, AL**

*Java Supplemental Instructor January 2019 – May 2022*

* Created and implemented interactive lesson plans incorporating active learning through group projects resulting in a 33% increase in student comprehension of Java programming concepts.
* Structured and facilitated collaborative learning activities resulting in a 30% increase in student participation and received “***Supplemental Instructor Leader of the year 2021***” among 25 supplemental instructors.

**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.