

Mausam Parajuli

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SKILLS

Java, Python, C++, HTML, CSS, JavaScript, React JS, Node JS, Bootstrap, NestJS, MySQL, Agile Scrum, Z3, Docker, Podman, Linux, Shell, KVM, VMWare, Virtual Box, GitHub, Jira, MS Office.

EDUCATION

Jacksonville State University

MS in Computer Systems and Software Design

Jacksonville, AL

Expected Graduation Date: December 2023

- Organizations/Awards: President of AlgoSolvers Club, President's List.

Jacksonville State University

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

Jacksonville, AL

Graduation Date: May 2022

- Organizations/Awards: Full-Ride Scholar, Computer Science Club, Summa Cum Laude Honor, Ambassador.
- 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.

WORK EXPERIENCE

Jacksonville State University

Graduate Research Assistant

Jacksonville, AL

August 2022 – Present

- Conducted in-depth analysis of reading/writing throughput, processing power, memory performance, timed compilation of open-source software, and performance of encryption algorithms on ARM-based single-board computers as hypervisors, resulting in a published paper with over 15 pages of analysis and recommendations.
- Identified **ODROID-N2+** as a superior performer over **Raspberry Pi 4 Model B** through rigorous testing and analysis, resulting 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.

Internal Drive Tech

Summer Bootcamp Instructor

Campbell, CA

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

Java Supplemental Instructor

Jacksonville, AL

January 2019 – May 2022

- Developed and implemented interactive lesson plans incorporating active learning through group projects to increase student comprehension of Java programming concepts by 33%.
- Received "**Supplemental Instructor Leader of the year 2021**" among 25 supplemental instructors for designing and facilitating collaborative learning activities resulting a 30% increase in student participation.

PROJECTS

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.
- **Live Demo:** [My-Portfolio](#)

Park-A-Lot

Project Manager

- Engineered a highly scalable web-based parking management system using **React JS** for the frontend and connected to a **MySQL** database hosted on **NestJS** server that reduced parking 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.