

Mausam Parajuli

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SKILLS

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

EDUCATION

Jacksonville State University **Jacksonville, AL**
MS in Computer Systems and Software Design *Expected Graduation Date: December 2023*

- Organizations/Awards: 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*

- 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 **Jacksonville, AL**
Graduate Research Assistant *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 **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*

- 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.