

PAVAN SAI CHILUKALA

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pavanchilukala.vercel.app

Technical Skills

Languages & Frameworks: JavaScript, Next.js, React, React Native, React Native, NodeJS, Python, HTML, CSS, PHP, Java, C++, Tailwind CSS, Bootstrap, LaTeX

Databases: MySQL, PostgreSQL, MongoDB, Neo4j

Tools & Platforms: Git, GitHub, Firebase, Tableau, Vercel, Render, NumPy, Pandas, Matplotlib

Education

University of Central Missouri

Jan 2024 – Dec 2025

M.S. Computer Science, GPA: 3.8

Professional Experience

University of Central Missouri

Jan 2025– Dec 2025

Teaching Assistant - *Design and Analysis of Algorithms*

Warrensburg, MO

- Evaluated **500+** undergraduate assignments involving pseudo-code, flowcharts, and algorithm design representations.
- Assessed solutions for logical correctness and efficiency, maintaining high grading accuracy for 60+ students.
- Applied knowledge of time complexity analysis and data structures to ensure consistent, accurate grading.

Dhanush Infotech Pvt Ltd

Sep 2022– Dec 2022

React Native Intern

Hyderabad, India

- Built **50+** UI components for mobile applications using **React Native** to improve frontend modularity.
- Integrated **100+** RESTful APIs for real-time data fetching and server-side data posting.
- Created **30+** deep links with Redux and managed push notifications using Firebase.
- Optimized UI performance by **20%** through the research and integration of open-source packages.

Key Projects

Vet Clinic Booking Platform (Daily Wag) | Full-stack Lead

2025

- Architected a decoupled system using a **React** frontend and a **PHP/MySQL** backend to improve modularity and maintainability.
- Engineered custom appointment scheduling logic to manage multi-vet availability and prevent resource conflicts.
- Leveraged **Amazon S3** for cloud-based storage of pet medical records and implemented secure **JWT**-based authentication.

C3-Carpool Connect | Lead Developer

2024

- Developed a ride-sharing platform using **Flask** and **React** to connect commuters through an intuitive map-based interface.
- Optimized **MongoDB Atlas** queries to achieve sub-second matching between riders and drivers based on route proximity.
- Managed automated deployment pipelines on **Vercel** and **Render**, maintaining **99.9%** application uptime.

Privacy Preservation of Biometrics | Lead Security Developer

2023

- Engineered a secure **JSP** application designed to encrypt and protect biometric templates stored in cloud databases.
- Implemented **AES-256** encryption protocols to ensure data privacy and integrity against unauthorized cloud access.
- Conducted performance benchmarking to ensure encryption processes did not impact **real-time** authentication speed.

Library Management System | Java Developer

2019

- Engineered a desktop application using **Java** and **MySQL** to automate book tracking, member registration, and fee collection.
- Designed a normalized relational database schema to ensure data integrity across **3,000+** book records.
- Implemented robust CRUD operations and search algorithms to reduce manual processing time by **80%**.

Certifications

React - The Complete Guide, Udemy (June 2025)

React Native - The Practical Guide, Udemy (March 2023)

Database Design & SQL / Intermediate PostgreSQL, Coursera (March 2023)