VISHNU VIVEK VALETI

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EDUCATION

M.S., Computer Science   **Aug 2024 – May 2026**
University of Florida, Gainesville, FL   GPA: 3.86
Coursework: Advanced Data Structures, Distributed Operating Systems, Software Engineering, Internet Storage Systems, Bioinformatics, Natural Language Processing.

B.Tech., Information technology   **Oct 2020 – May 2024**
Vignan University, Guntur, India   GPA: 3.43
Coursework: Data Structures & Algorithms, Java, Python, Web Applications, DBMS, Computer Organization & Architecture, IoT, Network & Cyber Security, Operating Systems.

TECHNICAL SKILLS

Programming Languages: Python, C/C++, Go, JavaScript, TypeScript, SQL, HTML/CSS.
Frameworks & Libraries: React.js, Node.js, Express.js, Docker, Streamlit, PyTorch, Tensorflow.
Databases: MySQL, PostgreSQL, MongoDB, Redis, Supabase, NoSQL.
Cloud & DevOps: AWS, CI/CD, GitHub Actions, Linux/Unix.
Testing & Tools: Unit Testing, Cypress, Jest, Agile/Scrum, Git, REST APIs, Go test.

PROFESSIONAL EXPERIENCE

Graduate Student Assistant – University of Florida   **Aug 2025 – Present**
Stack: React, Plotly, TensorFlow, PyTorch, Pandas, NumPy, PostgreSQL, Vercel
- Developing a React based accreditation platform, deployed on Vercel, automating evaluations for 10+ operators and improving transparency.
- Implemented ARAS with gatekeeper criteria, standardizing tiered accreditation (Platinum–Bronze) across multiple cases.
- Added dynamic table components allowing users to add/edit rows and columns directly from the UI, and automated Delphi weighting/validation to cut manual review time by 50% with reproducible, exportable reports.

Software Development Program Apprentice – Vignan University   **Jan 2024 – May 2024**
Stack: React, PHP, MySQL
- Built a React + PHP/MySQL academic portal, reducing manual workflows by 40% and cutting data entry time 60%.
- Automated critical record management processes, improving data consistency and eliminating redundancy.
- Designed and implemented secure, role-based dashboards supporting 150+ active users across multiple academic systems.

Teaching Assistant – Vignan University   **Aug 2023 – May 2024**
Stack: DBMS, MySQL, PHP, Web Applications, Agile/Scrum
- Mentored 100+ students in backend/web development, improving project completion rates and code quality.
- Standardized grading rubrics across 6 sections, ensuring fairness in database query and API evaluations.
- Led 20+ Agile teams through full sprints, improving debugging efficiency by 30% and accelerating delivery timelines.

ACADEMIC PROJECTS

JobScoop
Stack: Go, PostgreSQL, React.js, Redis, Docker, Cypress, Jest
- Engineered a job search platform with secure login, subscriptions, and custom job-board filters, tested with 50+ sample users.
- Architected a Go backend with 12+ REST APIs and PostgreSQL, integrating web scraping pipelines and a React-based dashboard.
- Validated reliability with Cypress E2E and Go unit tests, achieving 85% test coverage and seamless frontend–backend interaction.

Reddit-Style Discussion Platform
Stack: Go, PostgreSQL, REST APIs
- Engineered a Reddit-style backend in Go with REST APIs for posts, comments, voting, and auth, backed by PostgreSQL.
- Leveraged Go's concurrency model (goroutines + synchronization primitives) to enable safe parallel request handling, sustaining 50+ concurrent clients under load.
- Benchmarked scalability with a CLI load-testing tool, validating system throughput and response times under stress.

Rule-Based Chatbot
Stack: React, TypeScript, Node.js, Express, WebSockets, Docker
- Engineered a rules-driven, real-time chatbot (React, Node/Express, WebSockets) with hot-reloadable JSON/YAML rules, strict schema validation, and Dockerized CI/CD pipeline.
- Implemented a Redis-backed storage adapter with pub/sub replication, enabling horizontal scaling across replicas with consistent state propagation.
- Enhanced reliability with CORS restrictions, API rate limiting, WebSocket backpressure, and frame size limits, sustaining >1k messages/sec under load tests