Saicharan Vishwanatha

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Education

Colorado State University **August 2023 – May 2025**
Master of Science in Computer Science **- Cumulative GPA: 3.86/4** *Fort Collins, Colorado, USA*

Technical Skills

Languages: Python, Java, JavaScript, TypeScript, C++, HTML/CSS, SQL
Databases: MongoDB, MySQL, PostgreSQL
Web Technologies: ReactJS, NodeJS, TailwindCSS, ExpressJS, WordPress, Bootstrap, jQuery
Design Tools & Cloud Developer Tools: Figma, Adobe XD, AWS, Azure
Technologies/Frameworks: Docker, Kubernetes, GitHub Actions, Linux, Jenkins, Junit, VS Code
Tools & Libraries: OpenCV, Dlib, NumPy, Git, JIRA, Bitbucket, Imutils, OpenAI API, REST APIs

Experience

TILT **April 2024 – May 2025**
Software Engineer *Fort Collins, Colorado, USA*

- Led over 10 usability audits and faculty focus groups to evaluate the TILT website, translating user research into actionable UX improvements that increased satisfaction scores by 30%.
- Spearheaded accessibility enhancements across 50+ web pages, resolving the top 3 recurring accessibility issues and achieving 90% WCAG 2.1 compliance across core university web interfaces.
- Collaborated with designers and developers to iterate on wireframes, improving navigation structure and content clarity, resulting in a 25% reduction in user drop-off from key informational pages.
- Conducted regular A/B testing on redesigned pages, using feedback and analytics to drive data-informed improvements that boosted user engagement by 20%.
- Created accessibility and usability documentation adopted by 3+ teams, improving WCAG compliance by 40% across future projects.

TCS (Tata Consultancy Services) **July 2021 – June 2023**
Software Engineer *Hyderabad, Telangana, India*

- Developed over 40+ responsive UI components in ReactJS for CRM and finance systems, improving performance and reducing average page load times by 20% across modules.
- Implemented 3 dynamic order tracking dashboards and streamlined UI workflows for customer and finance operations, reducing navigation complexity by 30% and increasing task efficiency by 25%.
- Integrated 20+ RESTful APIs to enable real-time data synchronization between frontend modules and backend services, enhancing system reliability and data accuracy by 35%.
- Enhanced form validation logic and user input handling, leading to a 15% reduction in data entry errors across internal CRM tools.
- Participated in 70+ Agile sprints with cross-functional teams, maintaining a 95% on-time feature delivery rate and contributing to sprint planning and backlog grooming.
- Executed 50+ code reviews and maintained detailed internal documentation to support onboarding of 5+ new developers, improving team ramp-up speed by 30%.

Projects

Portfolio Website | *JavaScript, ReactJS, HTML, TailwindCSS*

- Objective: Built a portfolio website to showcase 3+ projects, technical skills, and experience, featuring a responsive interface to enhance accessibility across devices.
- Launched a responsive personal portfolio website with React, JavaScript, HTML, and TailwindCSS, showcasing projects and boosted user activity by 40% through a polished UI and seamless user experience.

Personalized Recipe Generator | *Node.js, React.js, HTML, CSS, MongoDB, OpenAPI, JavaScript*

- Objective: Generated over 100 unique recipe recommendations using user input on preferences, dietary needs, and ingredient availability, streamlining personalized meal planning.
- Programmed a full-stack web app with React.js, Node.js, and MongoDB, integrating OpenAI and grocery APIs to streamline meal planning—cutting planning time by 50% and boosting user activity by 30%

Mouse Cursor Control Using Facial Movements | *Python, Dlib, OpenCV, NumPy, Imutils*

- Objective: Create an intuitive input mechanism using facial and eye gestures to enhance computer accessibility for physically challenged users by optimizing an EAR ratio around **0.25**.
- Engineered an assistive mouse navigation tool using ML libraries (Dlib, OpenCV, NumPy); optimized 100+ EAR/MAR thresholds to achieve 95% accuracy, enhancing usability by 60% and user autonomy by 50%.