

# SAI SATWIK BIKUMANDLA

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## Professional Summary

Master's in Computer Science candidate with hands-on experience in full-stack development, scalable system design, and cloud deployment. Skilled in React, Node.js, MongoDB, and Python with strong foundation in algorithms, data structures, and SDLC. Seeking Software Engineer role to contribute to Agile teams building reliable, high-performance applications.

## Key Skills

- **Frontend:** React (hooks, Router), TypeScript, Tailwind, Figma, responsive UI/UX.
- **Backend:** Node.js, Express, RESTful APIs, microservices, validation, error handling.
- **Databases:** MongoDB (indexes, aggregation), SQL (queries, joins).
- **Programming:** JavaScript (ES6+), Python, Java, C++, SQL.
- **DevOps/Cloud:** Git/GitHub, CI/CD pipelines, Vercel, Render, GitHub Actions.
- **Testing:** Jest, supertest, Selenium, debugging, code reviews.
- **Concepts:** Data structures, algorithms, OOP, design patterns, Agile/Scrum.

## Education

**University at Albany, SUNY — Albany, NY** *Aug 2024 – Present* M.S. in Computer Science (Systems Concentration)  
*Relevant Coursework: Algorithms, Database Systems, Software Engineering, Probability & Computing*  
**Sri Indu College of Engineering and Technology — Hyderabad, India** *Aug 2020 – Apr 2024* B.Tech in Computer Science & IT

## Projects

**News Application (MERN, JWT Auth)** 2025

- Built full-stack news app with authentication, protected routes, and session-aware UI.
- Designed scalable REST APIs with caching and MongoDB schema for user-specific saved news.
- Deployed frontend on Vercel and backend on Render with CI/CD and health checks.

**Movie Recommendation System (ML, Content-based)** 2025

- Developed recommender using TF-IDF and cosine similarity across 5k movies, achieving Precision@5 = 0.60.
- Built preprocessing pipeline with tokenization, lemmatization, and stop-word removal in Python.
- Documented methodology and deployed proof-of-concept for scalable recommendation engine.

**CommitMoji (React, TypeScript, Tailwind)** 2025

- Designed SPA catalog of Git commit emojis with copy-to-clipboard and responsive UI.
- Implemented TypeScript-first components and optimized for accessibility and SEO.
- Deployed on Vercel with optimized build pipeline and GitHub version control.

## Experience

**Executive Assistant to CEO — eSahayak (Remote)** *Mar 2024 – Jun 2024*

- Delivered React.js UI enhancements, improving customer-facing page load times by 10%.
- Enhanced project tracking/documentation, supporting leadership decision-making.
- Triaged and documented bugs, accelerating resolution of 5+ issues.

**Web Developer Intern — Rethink UX (Remote)** *Oct 2022 – Dec 2022*

- Delivered SaaS web modules, boosting client satisfaction by 15%.
- Refactored pages to static templates, reducing load times by 20%.
- Implemented SQL-based access controls, strengthening data integrity and security.

**Developer Advocate — StudyExperts (Remote)** *Jun 2022 – Aug 2022*

- Authored Python/MySQL tutorials, increasing engagement by 25%.
- Reduced customer support tickets by 30% through detailed product guides.
- Reported bugs and documentation fixes, improving product stability and user trust.

## Additional Work

**Student Assistant — SUNY Athletics, Albany, NY** *Jul 2024 – Present*

- Coordinated parking operations for 5,000+ visitors during large events.
- Ensured smooth traffic flow and positive customer experiences under pressure.
- Strengthened communication and problem-solving skills in high-demand situations.