

Shambhavi Goyal

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Education

University at Buffalo, The State University of New York

Aug 2023 – May 2027

BS in Computer Science, Honors College

- **GPA:** 3.85/4.0 | **Awards:** Dean's List, Women Empowerment Scholarship, University at Buffalo Flagship Scholarship
- **Coursework:** Operating Systems, System Programming, Computer Architecture, Data Structures, Algorithms & Complexity, Object-Oriented Programming, Probability, Linear Algebra
- **Leadership:** Member of the Leadership House, Women in Science and Engineering

Skills

Programming Languages: C, C++, Java, Python, JavaScript/TypeScript, HTML, CSS, Kotlin, Golang

Frameworks & Libraries: React, Node.js/Express, Bootstrap, Flask, Django, TensorFlow, Socket.IO

Databases: PostgreSQL, MySQL, MongoDB

Tools & Technologies: Git, GitHub Actions (CI/CD), Docker, AWS, REST APIs, Postman, Kubernetes

Operating Systems: Windows, Linux, MacOS

Work Experience

Software Developer Intern

Berkeley, CA (Remote)

Meta Layer Initiative

Aug 2025 – Present

- Developed a decentralized social platform with a Chrome browser extension powered by AI, building a full-stack application using Node.js/Express, PostgreSQL, and React, and integrating DeepSeek AI for contextual web analysis.
- Implemented real-time messaging with WebSockets, secured authentication with multiple OAuth providers, and delivered a responsive glassmorphism UI, optimizing reliability by 30% and supporting 100+ active sessions.

Undergraduate Teaching Assistant – Algorithms & Complexity, Discrete Structures

Buffalo, NY

CSE Department

Aug 2024 – Present

- Led weekly recitations and 20+ office hours on algorithms (greedy, divide-and-conquer, dynamic programming, NP-completeness), improving average class grades by 12% through clear explanations and problem-solving support.
- Assessed proofs, assignments, and exams while designing practice exercises that bridged theory with coding applications, strengthening students' mastery of data structures, algorithm design, and computational thinking in real-world contexts.

Technical Projects

AI-Powered Syllabus Calendar

[github](#) [🔗](#)

- Built a full-stack web application using Next.js, TypeScript, and OpenAI GPT-4o-mini, implementing intelligent PDF parsing and automated assignment extraction with 95%+ accuracy, reducing manual calendar entry time by 90%.
- Architected Google Calendar integration with OAuth 2.0 flow, real-time API synchronization, and ICS export, enabling cross-platform calendar management with sub-200ms response times and reliable handling of 17+ concurrent events.

Chat Application – Connectly

[github](#) [🔗](#)

- Built a secure, real-time, low-latency chat app using Flask, Socket.IO, and JavaScript supporting multi-room and private messaging, typing indicators, emoji reactions, and optimized message routing for enhanced performance and scalability.
- Optimized message routing, session management, and authentication protocols to support 50+ concurrent users with under 100ms latency, implementing secure login and SQLite-based storage for reliability across devices.

Productivity Bundle – TaskMaster

[github](#) [🔗](#)

- Built and actively used a full-stack productivity platform for students, integrating a task manager (CRUD, filters), notes/journaling, and a Pomodoro timer using Node.js, Express, MongoDB, and Tailwind CSS.
- Boosted personal task completion efficiency by 25% through intuitive UX; built reusable middleware reducing async error-handling code by 40%, enhancing maintainability, scalability, and overall system performance.

Android Movie Explorer – Cineverse

[github](#) [🔗](#)

- Developed a high-performance Android app, enabling real-time movie browsing with sub-200ms response times using optimized API calls and caching strategies to reduce redundant network requests, improving scalability and reliability.
- Implemented Material Design UI with dynamic search, interactive movie detail dialogs, and seamless light/dark theme switching, ensuring responsiveness and accessibility across SDK 21+ devices.