LAXMAN KATNENI

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EDUCATION:

The Ohio State University, College of Engineering   **Columbus, OH**
Bachelor of Science in Computer Science and Engineering   *May 2025*
- **Relevant Coursework:** Object-Oriented Programming, Algorithms, Database Systems, Data Structures, Artificial Intelligence, Operating Systems, Computer Networking, Principles of Programming Languages, Software Components, Software Requirements Analysis, Linear Algebra

WORK EXPERIENCE:

Software Engineer | *DigiClips*   *Jan 2025-May 2025*
SiriusXM Digital Monitoring System
- Engineered a **Python**-based system to automatically retrieve, record, and transcribe live **SiriusXM** broadcasts, reducing manual monitoring time by **90%**
- Built a robust web scraper using **Selenium-Wire** to simulate authenticated sessions, enabling multi-channel recording with up to **20** successful concurrent runs during testing
- Integrated **Chrome Audio Capture** and **FFmpeg** to automate SiriusXM compliant 10-minute audio recordings
- Refactored and modularized legacy **C/C++** codebase of over **3000 lines** from the TV backend to build a scalable radio file deletion system, ensuring compatibility with existing file structures and optimizing memory management

IT Student Assistant | *The Ohio State University, Fisher College of Business*   *Jan 2024-May 2025*
- Assisted in resolving over **300+ classroom and software support requests**, ensuring smooth daily operations for students and faculty
- Trained new student assistants on troubleshooting procedures and professional **customer service**

PROJECTS:

E-commerce Website   *Jan 2024*
- Collaborated in a team to build a basic e-commerce site with features like a shopping cart, item catalog
- Used **Middleman** and **Ruby** for backend logic, and **SQL** to manage product and order data
- Implemented search filters and cart functionality using **JavaScript** and **basic Angular** to improve usability

Class Schedule Generator   *Nov 2024*
- Built a scheduling tool that scrapes OSU's course catalog, detects conflicts, estimates travel time, and generates interactive HTML calendars
- Implemented backend logic in **Ruby**, with **web scraping**, Mechanize, Nokogiri, and **Geocoder**

CPU Scheduling Simulator   *Oct 2024*
- Built a **C-based simulator** to model core OS scheduling algorithms like **FCFS**(First Come First Served**)** and **SJF**(Shortest Job First), computing wait and turnaround times for given process queues
- Simulated **CPU process execution**, tracked scheduling metrics, and visualized algorithm performance to demonstrate **resource allocation** and **job prioritization**

SQL Database Design   *May 2023*
- Collaborated with a teammate to design and implement a **MySQL** relational database for a bookstore system with **ER modeling**, **3NF normalization**, views and indexes
- Wrote analytical SQL queries for customer spend, revenue tracking, and sales patterns, optimizing performance through indexing and **schema refinement**

LEADERSHIP EXPERIENCE:

Indian Student Association | *The Ohio State University*   *Aug 2023-May 2025*
Logistics Executive Board Member
- Supported event operations by planning and executing **logistics strategies** for crowd control, and booth setups, across large-scale cultural events
- Collaborated with board members to ensure **smooth event flow**, managing real-time issues related to venue layout, line formation, and safety protocols

TECHNICAL SKILLS:

- **Certification:** AWS Certified Cloud Practitioner
- **Programming:** Python, Java, JavaScript, Ruby, HTML, CSS, SQL, C, C++, MATLAB
- **Tools & Frameworks:** AWS, Git, GitHub, Visual Studio Code, MySQL, Middleman, Selenium, FFmpeg