

Aayush K. Singh

Youngstown, OH | (724) 513-0585 | asingh19@student.ysu.edu
linkedin.com/in/aayush-kumar-singh-dev | github.com/singhaayush01

PROFESSIONAL SUMMARY

Full Stack Developer and Senior Computer Science student with 3+ years of experience maintaining enterprise web systems. Specialized in bridging the gap between modern web development (React, Next.js) and AI integration. Proven track record of improving site accessibility (WCAG) and performance for academic institutions. Seeking a Software Engineering role to leverage expertise in frontend architecture and scalable systems.

EDUCATION

Youngstown State University <i>Bachelor of Science in Computer Science, Minor in Mathematics</i>	Youngstown, OH May 2026
<ul style="list-style-type: none">• GPA: 3.36 / 4.0 Honors: Dean's List, Academic Excellence Award• Relevant Coursework: Data Structures & Algorithms, Server-Side Development, Game Programming	

EXPERIENCE

Web Developer <i>Youngstown State University (Cliffe College of Creative Arts)</i>	Jan 2023 – Present Youngstown, OH
<ul style="list-style-type: none">• Maintained and updated the digital infrastructure for the college's public-facing portal using Drupal CMS, serving 11,000+ monthly users.• Collaborated with design teams to implement responsive UI components (forms, navigation) using HTML, CSS, and Bootstrap, ensuring visual consistency across departments.• Audited web pages for WCAG 2.1 accessibility compliance, modifying code structure to ensure usability for students with disabilities.• Developed interactive data collection forms to streamline student inquiries, reducing manual administrative data entry.	
Tech Tutor <i>Timeline Tech</i>	Aug 2021 – Nov 2021 Birgunj, Nepal
<ul style="list-style-type: none">• Designed and delivered introductory C++ programming bootcamps for students with no prior technical background.	

TECHNICAL PROJECTS

Super Mario Reinforcement Learning Agent <i>Python, PyTorch</i>	Nov 2025
<ul style="list-style-type: none">• Engineered an autonomous agent to play Super Mario Bros using Deep Q-Networks (DQN) and Reinforcement Learning.• Implemented computer vision preprocessing pipelines (frame resizing, grayscale conversion) to optimize model input data.• Designed a custom reward function to incentivize level completion and speed.	
TinyTextGPT (LLM Implementation) <i>Python, PyTorch</i>	2025
<ul style="list-style-type: none">• Developed a Transformer-based language model from scratch, implementing self-attention mechanisms and positional encoding.• Trained the model on the Project Gutenberg dataset to generate coherent text sequences.	
Personal Portfolio V2 <i>Next.js, React, Tailwind CSS</i>	2025
<ul style="list-style-type: none">• Architected a modern, high-performance portfolio website using Next.js to showcase technical projects.• Deployed via Vercel for global accessibility and optimized for mobile responsiveness.	
RSA Encryption Algorithm <i>C++, Cryptography</i>	2022
<ul style="list-style-type: none">• Implemented a secure public/private key encryption system using the RSA algorithm in C++.• Applied number theory concepts (modular arithmetic) to ensure secure data transmission simulations.	

TECHNICAL SKILLS

Languages: Java (Data Structures), Python, JavaScript, C++, SQL

Frontend Web: React.js, Next.js, Tailwind CSS, HTML5, CSS3, Drupal CMS

AI Machine Learning: PyTorch, OpenAI API, Reinforcement Learning (RL), LangChain

Developer Tools: Git, GitHub, VS Code, Vercel, Linux/Unix