

Jackson Press

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PROFESSIONAL SUMMARY

Proactive CS student at Virginia Tech with a strong foundation in HTML, CSS, JavaScript, and React. Experienced in designing, testing, and debugging interactive front-end features through academic and collaborative projects. Eager to contribute innovative ideas and hands-on skills to enhance user experiences in dynamic web development environments.

EDUCATION

Virginia Tech Blacksburg, VA (Expected Graduation: May 2026)

May 2026

B.S., Computer Science (GPA: 3.34/4.00)

- **Achievements:** Dean's List
- **Coursework:** Operating Systems, Database Management, Data Structures & Algorithms, Computer Organization and Architecture, Software Design, Applied Combinatorics, Cryptography, Linear Algebra

EXPERIENCE

Undergraduate Teaching Assistant - Data Structures and Algorithms

Jan 2025 - Present

- Conducted 10+ weekly office hours, clearly explaining advanced topics such as Java object-oriented design, algorithmic problem solving, file I/O, and exception handling, while also emphasizing debugging techniques applicable to coding and front-end troubleshooting.
- Delivered instruction on test-driven development and mutation testing, guiding students to write precise unit tests that ensure robust codebases—a practice that underpins effective front-end testing and error resolution.
- Collaborated with professors in weekly syncs to clarify design specifications, refine assignments, and integrate industry best practices, thereby developing a strong foundation in technical problem-solving and collaborative development.

TECHNICAL PROJECTS

Soundbase - Music Community

Apr 2025 - Present

- Developed a full-stack platform for music discovery and interaction with secure auth, real-time reviews, and synced playback, load-tested to handle 100+ concurrent users using WebRTC and Socket.IO.
- Integrated Spotify Web Playback SDK for in-app streaming, and built real-time group listening with synchronized playback via WebRTC and Socket.IO.
- Engineered secure OAuth 2.0 flow with PKCE, managing token storage, refresh logic, and playback authorization for seamless Spotify integration for users to stream directly from the website.
- Designed scalable APIs and relational schemas powering threaded posts, reviews, and real-time comments, with a focus on maintainability and engaging user experience

StepFree - Wheelchair Access and Travel NYC

NYC Mar 2025

- Deployed MVP that mapped 450+ NYC subway stations, enabling route planning for mobility-impaired users, with fully responsive UI and real-time transit updates using Next.js, TypeScript, and Vercel
- Integrated Mapbox, OpenStreetMap, and Google Maps APIs for accurate, real-time route navigation.
- Developed scalable backend systems for processing user data and storing route histories using Supabase (PostgreSQL).
- Followed Agile SDLC principles by rapidly planning, building, and iterating on core features, with continuous collaboration and testing to deliver a functional MVP under tight constraints.

NBA Metric Prediction Application

Dec 2024 - Present

- Developed and trained a custom regression model using 2,000+ NBA games to predict 3PM (3-point makes) with 61.5% accuracy
- Engineered an interactive UI with React.js and CSS, enabling users to explore player stats and game predictions.
- Led full-stack development team using Git for version control and collaboration in agile development
- Built a scalable backend with Node.js and a RESTful API in Python to manage player data and predictions while ensuring seamless frontend-backend integration.

TECHNICAL SKILLS/CERTIFICATIONS

- **Languages:** Python, Java, C, Typescript, Javascript, SQL, HTML
- **Frameworks:** Next.js, React, Node.js, Express, CSS
- **Tools/Databases:** PostgreSQL, Supabase, Docker, Git (CLI/Desktop), Socket.IO, WebRTC, Linux/Unix, MongoDB, OAuth 2.0, MySQL, Postman, Vercel, Jupyter, Cloud platforms, DevOps tools
- **Certifications:** AWS Cloud Practitioner Essentials June 2025
- **Development Skills:** User Interface Design, Debugging

CERTIFICATION

- AWS Cloud Practitioner Essentials June 2025