

# Lukas A. White

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## EDUCATION

### **Saginaw Valley State University, University Center, MI**

B.S. in Computer Science (Anticipated May 2026), GPA: 3.52 / 4.0

- Dean's List: Winter 2023, Fall 2024, University Honors: 2024

## ACTIVITIES

### **Game Design Club (SVSU) (March 2025 – Present)**

- Contributed to brainstorming sessions by introducing new gameplay ideas and design approaches.
- Assisted in evaluating feasibility and implementation strategies, guiding peers on how to turn concepts into working prototypes.
- Participated in collaborative problem-solving, showcasing methods to overcome technical and design challenges.

### **SAE Formula Racing Team (SVSU) (Jan 2022 – Jan 2024)**

- Designed and programmed a lap racing timer in Arduino/C++, enhancing the team's precision in races.
- Troubleshooting of complex electrical engineering and software integration issues collaboratively.

## PROJECTS

### **Independent Study: Development of AI Agents (In Progress)** *Python, AI fundamentals, Data collection & preprocessing, GitHub, Overleaf (LaTeX), Technical communication, Public speaking, Research writing*

- Investigated modern AI agent frameworks and compiled results into a structured technical report.
- Built experimental agents in Python with Gemini API integration, including data preprocessing and GitHub version control.
- Delivered a two-day presentation teaching classmates how to implement agents using no-code and coded AI development platforms.

### **Web-Based Study Tool (Group Project)** *HTML, CSS, JavaScript, Node.js, MongoDB, Express, AWS*

- Led a 4-person team, mentoring peers in Node.js, Express, and database integration while managing scope and deadlines.
- Developed a full-stack academic productivity platform (word processor, flashcards with TTS and drag-and-drop diagrams, and dynamic diagram tool) with JWT authentication, CRUD operations, and semi-MongoDB persistence.
- Ensured cross-browser compatibility and responsive design, delivering a seamless experience on both desktop and mobile devices.

### **Client-Server Sales System (Class Project)** *Java, JavaFX, SQLite, Threads, Network Programming, Load Balancing*

- Built a multi-threaded client-server application capable of supporting 1,000+ concurrent transactions with real-time network communication, error handling, and data serialization.

- Implemented SQLite database logic and SQL queries to ensure reliable, high-performance sales data storage and integrity.
- Designed a scalable system with load balancing across server threads and a JavaFX GUI for product entry, receipt generation, and sales tracking.

**Open-World Island Simulation for Wii Homebrew (*Personal Project*)** C, GRRLIB, DevKitPro, GCCORE

- Engineered a semi-infinite, procedurally generated 3D world with ocean + island terrain.
- Developed custom despawning logic with real-time collision detection and kd-tree spatial queries, optimizing memory usage and enabling seamless exploration with efficient environment and AI interactions.
- Optimized simulation performance to run smoothly on Wii hardware constraints.

**Simple Machine Learning Simulation in Unity (*Personal Project*)** Python, C#, Unity

- Created a cube agent that learns by trial-and-error to find a target object.
- Integrated Python and C# scripts to control learning logic and environment interaction.
- Demonstrated ability to link machine learning concepts with interactive 3D environments.

## SKILLS

**Programming Languages:** Python (primary), C/C++, Java, C#, JavaScript (ES6+), Visual Basic

**Web Development & Cloud:** HTML5, CSS3, Node.js, Express.js, MongoDB, AWS (EC2, S3, Route53), RESTful API design, JWT authentication

**Databases & Systems:** SQL, SQLite, NoSQL (MongoDB), database design, client-server architecture, load balancing

**Software & Tools:** Git & GitHub (branching, pull requests, collaboration), Unity, Arduino, Visual Studio, VS Code, Microsoft Office

**Core Competencies:** Object-Oriented Programming, Multi-threaded Programming, Procedural Generation, API Integration, Network Programming, Machine Learning Fundamentals

**Soft Skills:** Team Leadership, Technical Mentorship (taught teammates new frameworks), Project Management, Problem Solving, Time Management, Written/Verbal Communication

## WORK EXPERIENCE

**Subway – Staff (Auburn, MI / Mar 2025 – Present)**

- Trained and onboarded new employees, ensuring smooth integration and consistent performance.
- Delivered fast, friendly service in high-volume environment handling 200+ customers daily.
- Maintained cleanliness, safety, and quality standards, contributing to a 99/100 health inspection score.

**Midland Civic Arena – Seasonal Staff (Midland, MI / Jun 2021 – Dec 2021)**

- Managed 250+ guest interactions per day, ensuring smooth operations and safety compliance.
- Trained and mentored new employees, supporting team efficiency and high service quality.
- Assisted with event logistics and problem-solving, enhancing overall visitor experience.