Andrew Watters

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Education

Auburn University — Auburn, AL
B.S. Computer Science, Concentration: Systems & Artificial Intelligence | Minor: Philosophy — *Aug. 2025 – May 2029*

Enterprise High School — Enterprise, AL
High School Diploma | GPA: 4.4 (Weighted) | ACT: 35 — *Aug. 2021 – May 2025*

Experience

Data Engineer — Auburn, AL
Auburn University RFID Lab — *May 2026 – Present*

- Built and maintained production ETL pipelines in Python and Polars, extracting from BigQuery and loading into Azure SQL for enterprise retail clients
- Developed BigQuery SQL for store-level RFID inventory analytics across multiple locations, supporting client-facing reporting
- Built a UPC enrichment web application with Streamlit and Azure SQL, containerized with Docker, giving non-technical users self-service access to product data
- Implemented Pandera-based data validation to catch schema and quality violations before load, reducing downstream pipeline failures

Projects

Self-Hosted Linux Infrastructure | *Ubuntu Server, Docker Compose, Bash, SSH*

- Built and administer a bare-metal home server running Ubuntu 26.04 LTS
- Deploy and maintain containerized services via Docker Compose with SSH hardening and remote administration

Playing Gates | *Godot 4, GDScript*

- Designed and developed a laser-based puzzle game covering level design, game logic, and the physics of beam reflection and redirection
- Published as a playable browser build on albyteros.com

EZ3 Controller Prototype | *Fusion 360, Embedded Systems* — 2025

- Designed and built an accessible game controller prototype for players with limited motor control
- Awarded a $10,000 Be More Grant for innovation in assistive technology

albyteros.com | *HTML, CSS*

- Personal portfolio site built and maintained independently, hosting project write-ups and playable browser builds

Technical Skills

Languages: Java, Python, SQL, C++, HTML/CSS
Data & Backend: Polars, BigQuery, Azure SQL, MySQL, Pandera, Streamlit, Flask
Systems & Infrastructure: Linux (Ubuntu Server), Docker, SSH, Bash, Git
Tools & Platforms: Godot Engine, Autodesk Fusion 360, ESP32 / Embedded Systems

Leadership & Extracurriculars

- **FBLA** (2021–2025) — Two-time State Convention award winner; led Computer Game Programming design team
- **JROTC** (2021–2025) — Achieved LET IV (maximum level); commissioned rank of Second Lieutenant; earned highest GPA in the Wildcat Battalion
- **Debate Team** (2022–2025) — Founded and facilitated the team from the ground up

Honors & Recognition

- **Auburn University Presidential Scholarship** — Auburn's highest merit-based scholarship
- **Samuel Ginn College of Engineering Dean's Annual Scholarship**
- **2025 CIA STEAM Scholarship Recipient**
- **2025 Be More Grant Winner** — $10,000 award for the EZ3 Controller Prototype