

# EMMA CUNNINGHAM

Applied Research • Leadership • Cybersecurity • Analytics

Youngstown, OH (Open to Relocation)

<https://www.linkedin.com/in/emma-cunningham-0a6505293>

## PROFESSIONAL SUMMARY

Cybersecurity and data analytics student with a strong foundation in risk/data analysis, governance, and technical research. Proven ability to analyze data and communicate complex findings clearly to diverse stakeholders. Recognized as a reliable, people-focused leader with experience mentoring peers, collaborating across teams, and taking initiative in fast-paced technical environments. Brings a balanced approach of analytical depth and accountability to support well-informed decision-making. Four-time published researcher with experience in data-driven systems and AI-assisted problem solving.

## RESEARCH & PUBLICATIONS

- **Blockchain-Based Access and Usage Control of Government, Educational, and Electronic Health Record Systems (Most Recent)**
  - Studied blockchain-enabled frameworks to enforce fine-grained access control and prevent unauthorized data exposure.
  - Analyzed privacy risks, data immutability trade-offs, and real-world deployment constraints.
  - Demonstrated how decentralized architectures can mitigate centralized data leakage risks.
- **Additional Publications**
  - Research contributions to data-driven digital twins applied to stress management and student engagement in educational environments.

## EXPERIENCE

### **Data Analyst Intern – IST Mobile Cloud Computing & Data Research Team, Penn State**

*May 2025 - January 2026, Monaca, PA*

- Assisted in data analysis and visualization for research on mobile cloud computing systems.
- Co-authored and presented research “A Data-Driven Digital Twin for Student Engagement Prediction in e-Learning Systems” at a SiberX Seattle conference.
- Developed various apps/models and interpreted results for research.

### **The Pennsylvania State University - Peer Mentor & Student Leader**

*August 2024 - January 2025*

- Led first-year seminars, helping students transition to college life.
- Created new student engagement strategies and organized monthly sessions.
- Built Excel and Teams automations to streamline class schedules and communication directories.

### **Facilities & Technology Assistant - Cardinal Mooney**

*May 2024 - August 2024*

- Assisted with installation and troubleshooting of security cameras and door access systems to enhance campus safety.
- Provided technical support to faculty and staff on access management software, improving system reliability and user efficiency.

## CORE SKILLS

**Soft Skills:** Communication, Problem Solving, Collaboration, Leadership

**Programming & Tools:** Python, R, SQL, GitHub, Jupyter Notebook, HTML/CSS

**Research & Analysis:** Experimental design, statistical analysis, technical writing

## EDUCATION

### **Bachelor of Science – Cybersecurity Analytics & Operations**

The Pennsylvania State University

Graduation: May 2026