EMMA CUNNINGHAM

Applied Research • Leadership • Cybersecurity • Analytics
Youngstown, OH (Open to Relocation)
https://www.linkedin.com/in/emmarcunningham/

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.

Peer Mentor & Student Leader – The Pennsylvania State University
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