# Gabriel R. Edwards

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#### Education

### University of Missouri-Columbia

B.S. Computer Science — Certificate in Cyber Security

Accepted to M.S. Computer Science (Accelerated BS/MS Program)

Aug-Oct 2025

Start Date: Jan. 2027

GPA: 3.5

Anticipated Graduation: Dec. 2026

### University of Missouri-Kansas City

Micro-credential, U.S. Department of Education Center of Excellence in Spatial Computing

Explored geospatial data and AI/ML integration in AR/VR environments using Python and Unity.

## Research & Internships

### NSF Research Experiences for Undergraduates (REU)

Summer 2025

University of Missouri-Columbia — ACE: Adaptive Content Engine for Cybersecurity Education in VRs

- Designed a VR-based cybersecurity escape room that adapts difficulty using reinforcement learning (RL) models and learner behavior analysis.
- Integrated PPO and IRL models with LLM-generated hints to provide adaptive, personalized guidance.
- Evaluated model performance through gameplay analytics and presented outcomes at the NSF REU showcase.

### Undergraduate Research Assistant — AI Tutor Project

Fall 2025 – Present

University of Missouri-Columbia, Cyber Education, Research and Infrastructure (CERI) Lab — Advisor: Dr. Prasad Caluam

- Developing an AI tutoring system integrating large language models (LLMs) with reinforcement learning for adaptive, context-aware dialogue.
- Implementing safe RL optimization, retrieval-augmented generation (RAG), and reward-guided Chain-of-Thought reasoning to enhance accuracy and efficiency.
- Conducting research on pedagogical feedback alignment, model evaluation, and ethical AI design for educational use cases.

# Leadership

Founder 2025 - Present

Cybersecurity Special Interest Group, University of Missouri

- Established the university's first student-led cybersecurity special interest group.
- Organized workshops, guest talks, and hands-on labs to promote cybersecurity awareness and skills.
- Coordinated with faculty and peers to grow membership and integrate SIG activities within campus communities.

#### Experience

### Web Developer

2024 - Present

- Designed and launched client websites (WordPress/Squarespace) with responsive layouts and SEO optimization.
- Manage hosting, maintenance, and performance updates for reliability and security.

### MU Division of Information Technology, Columbia, MO

Computing Sites Tech Support

Feb 2024 - May 2025

- Diagnosed and resolved hardware/software issues, ensuring minimal downtime.
- Maintained campus printers and imaged computers to standard configurations.
- Tracked issues with ticketing systems and provided clear user support.

### Technical Skills

- Programming: C/C++, Java, Python, Swift, SQL
- Web Development: HTML/CSS, Squarespace, Wordpress
- Mobile Development: iOS (SwiftUI), JSON integration
- Game Development: Unity (C#), Pygame
- Machine Learning: Reinforcement Learning (PPO, IRL, MaxEnt), Large Language Models (LLMs), PyTorch
- Tools & Platforms: Git/GitHub, ONNX, Barracuda (Unity ML), TensorBoard, Linux/Unix CLI