

Cole P. Brazinski

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EDUCATION

University at Albany

Bachelor of Science in Computer Science (Expected May 2028)

Albany, NY

Aug. 2024 – Present

TECHNICAL SKILLS

Languages: Rust, Python, C/C++, Java, C#, SQL, JavaScript/TypeScript, HTML/CSS

Developer Tools: Git, Neovim, VS Code, JetBrains IDEs, Visual Studio, LaTeX, Markdown

Frameworks: React, Node.js, Flask, FastAPI, Wgpu, Rocket, Yew, Dioxus

Libraries: Serde, Raylib, ImGui, SQLX, clap, tokio

Infrastructure: Proxmox, GCP, AWS, Vultr Hosting, pfSense, Docker, Kubernetes

EXPERIENCE

Shadow Chief Technology Officer

Jan. 2025 – Present

UAlbany Cyber Defense Organization

Albany, NY

- Developed specialized, in-house tooling to streamline red-team adversarial operations
- Managed and deployed critical infrastructure for cyber defense competitions, ensuring stability and uptime
- Engineered a highly performant and scalable C2 framework written in Rust, with a focus on interactivity, user-experience, and reliability for red-team engagement
- Established concise technical documentation, aiding in deployment and management of in-house services and infrastructure

Junior Vice-Chair

Sept. 2024 – Present

UAlbany IEEE

Albany, NY

- Spearheaded the organization and delivery of 2+ hands-on workshops per semester, engaging over 50 participants in topics such as XSS exploitation, and Neovim configuration
- Assisted in organizing and running an on-campus hackathon, providing real-world experience and networking opportunities with industry professionals to 70+ students
- Facilitated collaboration between IEEE and other on-campus organizations such as the Cyber Defense Organization

Private Peer Tutor

Sept. 2024 – Present

Independent

Albany, NY

- Mentored students in subjects such as computer science and mathematics, yielding a measurable increase in project grades of up to 30%
- Designed and delivered personalized lesson plans and practice problems tailored to students' unique learning styles and academic goals
- Utilized tools such as Zoom to accommodate students' diverse availability and schedules

Design and Manufacturing Contractor

Mar. 2022 – Present

CBI Professional Wiring Systems

Oriskany, NY

- Designed and manufactured precision components for professional digital audio wiring systems, shipping over 1,000 units annually
- Developed and optimized internal processes and systems, streamlining inventory management, quality control, and packaging
- Explored and employed rapid-prototyping technologies such as milling and FDM+SLA 3D printing, accelerating development and production time

PROJECTS

Pantheon | Rust, Dioxus, Rocket, Serde, HTML/CSS

Nov. 2024 – Present

- Developed a command and control framework for use with the UAlbany Cyber Defense Organization
- Designed an efficient, binary-serializable network protocol for communication between agent and backend, shrinking traffic volume by over 50% compared to JSON
- Architected a portable command parsing and execution library for environments where a browser may not be accessible
- Managed and deployed all aspects of the distributed server using technologies such as Docker and Proxmox