

# Cezar Pedroso



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## Education

### **William Penn University**

Oskaloosa, IA | Jan 2023 – Dec 2026

- B.S. in Software Engineering & Information Technology (GPA: 3.5/4.0)
- Business Management Minor

## Experience

### **Jeremy Empie Web Design LLC (Intern)**

Oskaloosa, IA | May 2025 – Jul 2025

- Improved office infrastructure by wiring and configuring switches, routers, and network equipment
- Managed backend infrastructure using cPanel, including databases (MySQL), domain configuration, server file structures, and security plugins
- Built and deployed 7 websites using WordPress, HTML/CSS, JavaScript, and PHP
- Configured Raspberry Pi devices for internal tools, gaining experience with Linux and networking

### **WPU: Computers & Tech Lab (Lab Assistant)**

Oskaloosa, IA | Sep 2023 – May 2024

- Assisted 60+ students with technical issues, including hardware, software, and code debugging
- Mentored 3+ students during their final projects, offering guidance
- Maintained lab computers to ensure optimal functionality and security

### **WPU: Students Services (Resident Assistant)**

Oskaloosa, IA | Jul 2024 – Present

- Coordinate and supervise a residential community of 100+ students
- Lead and coordinate a team of 6+ resident assistants
- Enforce campus policies and respond promptly to incidents and emergencies

## Projects

### **Vulnerability Scanner (Python)**

- Developed an automated vulnerability scanner integrating Nmap and Metasploit to identify, validate, and exploit CVEs with 90% accuracy in test environments.
- Engineered a dynamic PDF reporting system with risk assessment, session logging, and exploit execution summaries for penetration testing documentation.
- Automated exploit deployment via Metasploit RC scripts with user-defined payload configurations, reducing manual testing time by 40%

- Designed a modular CVE database in JSON format, enabling rapid updates for new exploits and compatibility with security research workflows

### **Secure File Vault (Python)**

- Developed a secure file encryption tool using AES-256-GCM encryption for strong confidentiality and integrity protection.
- Implemented password-based key derivation with Argon2 to generate encryption keys from user passphrases.
- Designed encrypted metadata storage and optional secure file deletion to protect file information and prevent data recovery.

### **AI Chatbot in Unity**

- Built an in-game AI chatbot using C# in Unity, integrating OpenAI's GPT API for dynamic NPC dialogue.
- Implemented a TCP client-server architecture to manage real-time message exchange between game and AI backend.

## **Technologies & Skills**

- **Languages:** C#, Python, JavaScript, Go, HTML/CSS, Bash, PowerShell
- **Data:** SQL, PostgreSQL, MongoDB, Pandas, JSON
- **Frameworks:** Git/GitHub, React, Node.js, Unity, Cisco Packet Tracer
- **Languages Spoken:** English, Portuguese, Spanish (Fluent); Italian, Serbian (Intermediate)