William Bogusz

Blacksburg, VA 24060
703.389.3348 | will@bogusz.co
LinkedIn bogusz.co GitHub

Technical Knowledge

Skills: Fullstack Development, Automation Scripting, Cloud Deployment, System Administration, Security Assessments
Languages: Python, JavaScript, Bash, Powershell, Java, C, SQL, HTML5/CSS
Tools/Frameworks: Git, AWS, Selenium, React, Docker, MySQL, Nginx, Nessus, Visual Studio, ChromaDB, GitHub Actions
Operating Systems: Windows 7/10/11, Linux (Ubuntu, Kali, CentOS), MacOS

Experience

Associate Software Engineer   **Sep 2022 – May 2024**
FoxGuard Solutions   *Christiansburg, VA*

- Solely responsible for the development and maintenance of a suite of large-scale, in-house automation tools, encompassing extensive scripting based largely in **PowerShell** and **Python**
- Transformed the existing 'security patch delivery' pipeline by using **PowerShell** to automate the entire process, streamlining the aggregation of patch data, download files, and metadata, reducing manual workload by over 95%
- Developed a **Puppeteer**-based **JavaScript** scraping tool to automate the collection of security patch verification data, such as screenshots, ensuring integrity and authenticity of patch files provided to clients
- Led the full lifecycle of these automation tools, from conception to deployment; managed versions with **git**, ensured quality with unit testing, and wrote comprehensive documentation that enabled successful adoption and usage across multiple offices

Secure Systems Engineering Intern   **May 2022 – Aug 2022**
Raytheon Intelligence & Space   *McKinney, TX*

- Executed vulnerability scans on various system implementations (PetaLinux, Red Hat, Windows 7, Ubuntu) using Nessus
- Designed vulnerability remediation implementation guides for these systems based on analysis of Nessus output data and scope of product's mission/specific client requests for detection omission
- Tailored DoD STIG compliance expectations by assessing out-of-door functions of system components to ensure that they would be capable of meeting NIST 800-53 compliance

Education

Virginia Tech Engineering   **May, 2024**
B.S., Computer Science, Cybersecurity Minor   *Blacksburg, VA*

- Intelligence Community Center of Academic Excellence (IC CAE) Scholar
- Awarded stipend for Undergraduate Research under sponsored Raytheon Fellowship (2021-2022)

  Relevant Courses: *Applied Software Design, Computer Security, Operating Systems, Data Struct. & Algorithms, Network Arch.*

Projects

GitHub Repository Code Interpreter   **Oct 2023 – Nov 2023**

- Developed a novel translation mechanism for codebase embedding in **Python**, giving large language models like **OpenAI**'s GPT-4 the ability to semantically search and interpret source code data from a variety of languages
- Independently researched and designed this intermediary process that translates code into English-readable commands before vectorization, allowing the language model to perform contextual critical thinking and improve code retrieval accuracy
- Integrated this design into an open-source document loader with **ChromaDB** for optimized retrieval-augmented generation
- Designed and implemented a **React** and **viteJS** frontend to facilitate user interaction, significantly streamlining the process of understanding and leveraging GitHub repositories for the creation of new solutions

Self-Hosted Development and Deployment Platform   **Jul 2023 - Present**

- Engineered a comprehensive domain and network tunneling architecture to securely access self-developed applications, hosted on a personal server environment
- Leveraged a robust suite of technologies, including **Docker**, **Nginx**, and a variety of **AWS** web services to facilitate a reliable hosting solution for these tools/applications on personal hardware
- Implemented automation scripts, utilized **git**, and established **CI/CD** pipelines with **GitHub Actions**, ensuring efficient development, testing, and deployment of these tools and applications