GREGORY VANCE

Alberta Canada
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Highlights of Skills

Languages: Java, C, C++, Python, HTML, CSS, JavaScript, SQL, C#, .NET
Technologies: Linux, Git, GitHub, Docker, Digital Ocean, AWS
Communication: Ability to communicate technical knowledge to groups of beginner participants. Experienced in writing detailed reports to clearly convey necessary information
Leadership: Coordinated and motivated small to medium teams to achieve goals and deadlines in both a business and academic setting
Collaboration: Worked closely with other students with disparate skills to run annual magpieCTF, including troubleshooting and co – development of challenge software.
Problem Solving: Navigated complex problems in high stress environment leading to increased productivity

Education

Bachelor of Science, Computer Science | University of Calgary September 2020 – April 2023
- Graduated with Distinction
- 3.75 GPA
- Dean's List

Project Experience

Travel Guide Flight Finder
- Created a full stack web application, using HTML, CSS, JavaScript, NodeJS, Express, MySQL, and Docker
- Designed a relational database through diagramming and database modelling

Self-Checkout Simulator
- Worked with small, medium, and large teams to simulate the software development process on an iterative project
- Exposure to software development models such as agile, waterfall, and test-driven development
- Developed Java based project, utilizing object-oriented principles, design patterns, software modelling, version control, unit testing, and integration testing

Reverse Engineering Challenge Vault
- Built a two-stage reverse engineering challenge in C utilizing string format vulnerabilities, MD5 hash reversal
- Deployed online using Docker

MagpieCTF Web Exploitation challenges
- Built multiple websites using HTML, CSS, and JavaScript, and deployed to the cloud using NGINX, Docker, and Digital Ocean
- Websites designed to incorporate web exploitation techniques including, cookie manipulation, and web-content scanning

Machine learning, Data Science, and programming techniques
- Introduction to Data Science and Machine learning using Python, NumPy, Pandas, Matplotlib, Scikit-learn, and TensorFlow to explore MNIST and other datasets

- Exploration of programming techniques, including unit testing, refactoring, continuous integration, and continuous delivery (CI/CD), version control, and Docker

Computer Security, Networking, and Exploitation
- Created multi-threaded client and server architecture, exploring networking protocols and socket programming using C/C++
- Exploration of network vulnerabilities and exploits, and developing programs to facilitate exploitation using C/C++
- Developed C programs and bash scripts to exploit programs using buffer overflows, string formatting, and environment variables in Linux

Studio 15 Photo Management
- Built a high-fidelity web-based photo management prototype using C#, .NET, and Blazor
- Interviewed target users to develop requirements and suggestions for an application that met their needs
- Iterated on design with sketches, low-fidelity, and high-fidelity prototypes to improve on UI/UX incorporating feedback for an improved product

Volunteer Experience

VP Finance | University of Calgary Information Security Club October 2020 – April 2023
- Collaborated with a mid-sized team leading to the successful delivery of annual magpieCTF event
- Taught workshops on introductory cyber-security topics, such as web-exploitation, and forensics to over 20 participants
- Developed web-exploitation, binary exploitation, and forensics challenges
- Managed club finances to ensure delivery of high-quality teaching and learning experiences to members

Additional Work Experience

Security Officer | Paladin Security November 2016 – August 2021
- Ensured safe environment through close collaboration with a small team, strong communication, problem solving, and conflict resolution, leading to increased client satisfaction