Popescu Mircea

0765689132 @ pmirceaionut@outlook.com

Summary

I am a third-year student at the Faculty of Electronics in Iași, with a passion for electronics and the development of embedded software, and with practical experience in the automotive field. I am interested in developing my skills and learning new technologies in my field of study.

Experience

Continental Automotive — **July 2023 - Present**
Software developer helper - Internship — Iasi, Romania

- I created a robot that used a custom artificial intelligence model, from a camera feed, to detect when it was stuck and avoid obstacles, but in case it got stuck, I used image processing to get the robot out of the blockage, with the help of an arduino, an hbridge, a jetson nano, a 12v to 5v converter (for arduino) and a 12v to 24v converter (for dc motors).
- I used a jetson nano with a camera attached to a robotic arm with 6 degrees of freedom to lift objects using a custom object detection model.
- I helped with the software integration of the windshield washer motors for an automotive project of a well-known brand.
- I created automated tests for testing the ADC values for an engine computer.
- I created an automation tool for any type of excel file.

Education

Faculty of Electronics, Telecommunications and Information Technology — **2021 - Present**
Applied Electronics — Bachelor's degree

Projects

C++ secure loader
https://github.com/mircea32000/secure_dll_loader.git

- Designed and implemented a highly secure C++ DLL loader using industry-standard SSL encryption to ensure the safety and integrity of loaded DLL bytes.
- Developed a license management system that provides efficient and reliable management of software licenses, enhancing the user experience and ensuring proper usage of software.
- Streamlined the process of loading DLL bytes directly into application memory, resulting in faster application performance and increased user satisfaction.
- Researched and implemented security measures in the development of a highly secure DLL loader using C++.

Game-Cheating project
https://github.com/mircea32000/csgocheat.git

- Conducted in-depth analysis of the game's code to uncover previously unknown exploits and vulnerabilities.
- Utilized reverse engineering techniques to gain a deep understanding of the game's mechanics and underlying systems.
- Developed a custom cheating tool using advanced algorithms to leverage these exploits and gain an unfair advantage in gameplay.
- Dedicate extensive effort towards ongoing development and optimization of the cheating tool, outpacing anti-cheat software and ensuring maximum efficacy in gameplay.
- It is crucial to highlight that this project was created solely for educational purposes and not utilized in any malicious or harmful manner.

Skills

Languages

Embedded C, C, C++, Python, PIC16 ASM, JavaScript, Matlab, VBA, PHP, HTML5, CSS3

Databases

MySQL

Tools

WinIdea, Doors, IDA PRO, Visual Studio Code, Visual Studio, Eclipse, Ghidra, x96DBG, Git, Git Extensions, GitHub, Oracle Cloud, SWATT, AutoSAR

Libraries

ResNet18, OpenCV, YOLOV7, NumPy, PyTorch, TorchVision, PySerial, Dear ImGui, Win32Com, WinAPI, OpenPyXL, Blackbone, CURL, JSON

Others

Reverse engineering, Communication, Electrical engineering knowledge

Languages

Romanian , English