Nick Andry

Ramsey, IN | (812) 320-3941 | nandry@purdue.edu | github.com/Bilbin | linkedin.com/in/nick-andry/

Seeking low-level/embedded software development internship

EDUCATION

PURDUE UNIVERSITY   West Lafayette, IN
Bachelor of Science   Expected July 2025
Major in Computer Science; Minor in Math | Cumulative GPA: 3.86/4.0
Relevant Coursework: Compilers (C++), Systems Programming (C/C++), Computer Graphics (C++), Algorithm Analysis

WORK EXPERIENCE

PURSEC LAB (Security Lab at Purdue)   West Lafayette, IN
Research Assistant   Jan 2024 – Dec 2024
- Developed **Patcherex2** with a graduate student (rewrite of Patcherex, a tool for architecture-agnostic binary patching)
- Resolved bugs, wrote tests, and maintained large Python codebase
- Became familiar with common instruction sets, Keystone/Capstone, QEMU, and patching methodologies
- Worked with **Caterpillar** in firmware analysis/patching for farm equipment/old devices

CAESAR CREEK SOFTWARE (Embedded Vulnerability Analysis Defense Contractor)   Miamisburg, Ohio
Software Engineering Intern   May 2024 – Jul 2024
- Analyzed and developed real exploits against **Unifi Access** door reader system, **allowing unauthorized access**
- Gained knowledge of reverse engineering, embedded systems, networking protocols, and MIPS/ARM instruction sets
- Technical training including Win32/C++ development, linux kernel module development, and hardware exercises
- Achieved nearly the **highest possible points** in performance review

PURDUE UNIVERSITY   West Lafayette, IN
CS 24000 (Programming in C) TA   Aug 2023 – Dec 2023
- Held office hours/labs and assisted in course logistics every week, teaching students C programming concepts
- Extensive knowledge of the **C programming language, GCC, and GDB**

PROJECTS

CRYPTUM   Jan 2023
- Developed encrypted file storage solution powered by Tillitis TKey (C for TKey firmware, Svelte for file storage frontend)
- **Won "Best National Security Project"** at Boilermake X hackathon with 4-person team

CHIP8 INTERPRETER (Old Interpreted Language for Writing Games)   Mar 2024
- Chip8 interpreter written in **Rust** using the Pixels, Rodio, and Winit crates

ACTIVITIES

B01LERS (PURDUE CTF TEAM) (Cybersecurity Competition Team)   West Lafayette, IN
Public Relations Officer/Event Manager   Oct 2022 – Present
- Corresponding with companies, organizations, and individuals for event sponsorship and technical presentations
- Specialized in reverse engineering/binary exploitation on the team. Required low-level knowledge and static/dynamic analysis
- **Placed first in Raymond James CTF** in St. Petersburg, Florida against 13 other colleges

MITRE EMBEDDED CTF COMPETITION   Boston, MA
Attack Team   Jan 2024 – May 2024
- Analyzed/exploited other teams' implementations of medical device on **MAX 78000 microcontroller** throughout semester
- Gained knowledge of **secure communication, I2C, interrupts, OpenOCD** and other embedded concepts/tools
- **Placed 3rd across the nation**

ADDITIONAL

Awards/Certifications: **Eagle Scout**, eLearnSecurity Junior Penetration Tester
Class Projects: Malloc, web server, and shell from scratch in C/C++. Multi-user networked messaging system in Java
Technical Skills: C, C++, Rust, Java, Python, x86/ARM/MIPS Assembly, Embedded Systems, Ghidra, GDB, QEMU, Git