Uros Stanic

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EDUCATION

PhD in Computer Science

Jan 2025 – Present

Texas A&M University, College Station, TX (GPA: 4.0/4.0)

Bachelor's with Honors in Software Engineering

Oct 2020 - Oct 2024

University of Novi Sad - Faculty of Technical Sciences (GPA: 9.58/10.0)

Research Experience

Research Assistant at Texas A&M University

Jan 2025 - Present

- Develop and maintain a custom sandbox for malware tracing and fuzzing of malware samples, based on Intel Pin instrumentation.
- Apply AI classifiers, rule-based, and capabilities techniques for malware detection and classification based on logs collected from the aforementioned sandbox.
- Conduct research in dynamic malware analysis under Dr. Marcus Botacin.

Visiting Research Intern at Texas A&M University

Jul 2023 – Sep 2023

- Completed a malware research internship through the CSSAP program with Dr. Marcus Botacin.
- Designed and implemented a sandbox using Intel Pin to trace Windows API calls of executables.
- Continued collaborative research beyond the internship, contributing to ongoing projects.

PROJECTS

AI-powered fuzzing smart sandbox

Ongoing

• Natively fuzz the malware samples in the sandbox, using AI-guided optimal fuzzing, to build a function call graph. Leverage resulting function call graphs and their embeddings to achieve better classification, as they are the natural product of fuzzing.

Best practices for malware sandboxing

Ongoing

• Review of current state-of-the-art, identify shortcomings, and provide the best practices in regards to abstraction levels, data collection, and model architecture. Compare AI detection to rule-based techniques and capabilities. Built on top of my Bachelor's Thesis.

Bachelor's Thesis: Dynamic Binary Instrumentation Implementation

Completed 2024

• Implemented Intel Pin instrumentation for dynamic tracing of Windows API calls (200+ most common ones for malware detection).

CERTIFICATES

Intro to Dark Web Operations, Security Blue Team

Aug 2024

SKILLS

Cybersecurity Malware analysis, Malware detection, OSINT, Steganography, C/C++

AI Binary classification, NLP (log parsing), Pytorch, Python

Web development Spring, Angular, React, GO Docker, AWS basics

Software development Agile software development, ClickUp, Git, Design Patterns