

# Nofil Qasim

Malware Researcher  
Systems Programming  
Computer Security  
Binary Security of WebAssembly  
Linux Kernel Exploitation

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## EDUCATION

BACHELOR OF SCIENCE  
Computer Science  
PUCIT - University of the Punjab  
2019 – 2023  
CGPA: 3.54/4.00

A LEVEL  
Lahore Grammar School  
2017 – 2019

O LEVEL  
Aitchison College  
2007 – 2017

## SKILLS

OS  
GNU/Linux, Windows + WSL

LANGUAGES  
C, C++, Python, Java,  
Rust (Basics)

TOOLS  
Ghidra, Radare Cutter, GDB

OTHERS  
Reverse Engineering,  
Malware Analysis, LaTeX,  
Binary Exploitation

## COURSES

Malware Analysis  
TRYHACKME  
Incident Response and Forensics  
TRYHACKME

Reverse Engineering 101  
MALWARE UNICORN

## WORK EXPERIENCE

11/2021 – PRESENT **Ebryx Pvt. Ltd.** *Malware Researcher*  
DEPARTMENT: SECURITY R&D

Worked on:  
Basic Linux Usermode and Kernel Exploitation  
Windows Kernel Exploit PoC Testing  
Windows Malware Deployment Techniques  
AV and EDR Evasion Techniques  
Security Tool Bypass Techniques (Applocker etc.)  
Active Directory Compromise  
Red Team Activities (Phishing, C2 etc.)

07/2021 – 09/2021 **Systems Limited** *Intern*  
DEPARTMENT: INFORMATION SECURITY

L1 SOC  
Web Application Pentesting

02/2022 – 10/2022 **PUCIT** *Undergraduate Teaching Assistant*  
OPERATING SYSTEMS

02/2021 – 06/2021 **PUCIT** *Undergraduate Teaching Assistant*  
COMPUTER ORGANIZATION AND ASSEMBLY LANGUAGE

## ACHIEVEMENTS

2018 **NASA AMES Space Settlement Design Competition** *3rd Place*  
LAHORE GRAMMAR SCHOOL (TEAM EFFORT)

Designed robotic automation and an IT security plan for the space settlement

## PROJECTS

12/2019 – PRESENT **WASM Research Documentation** *WebAssembly*  
<https://github.com/papadoxie/WASM-Research-Docs>  
Publicly available portions of my research documentation on WebAssembly Security

10/2021 – PRESENT **OS Development** *C & i686/amd64 asm*  
<https://github.com/papadoxie/cronOS>  
Kernel Development (Currently working on initializing GDT)  
User Space Development (Pending)

11/2020 **Hack Assembler** *C*  
<https://github.com/papadoxie/Hack-Assembler>  
Assembles Hack Assembly into Hack Machine Code  
Two Pass Assembler  
Uses properly managed File Handling, custom Hash Table implementation, structs and Dynamic Memory

## LANGUAGES

English  
Urdu

Bilingual  
Native

8/2021 – PRESENT **Scripts**

<https://github.com/papadoxie/Scripts>

Scripts I have written for some past challenges that I might use for future reference

Python

04/2022 – 06/2022 **Linux Command Line Tools**

<https://github.com/papadoxie/SP-Progs>

Some command line tools written for the Systems Programming Course

C

## RESEARCH EXPERIENCE

07/2022 - PRESENT **A Novel Approach to Applying x86-64 Exploitation Techniques on WebAssembly Binaries**

PUCIT

Researching the practicality of using well known binary exploitation techniques on WebAssembly binaries

09/2022 - PRESENT **Salient Features of MIPS32/64 Architecture and A Handy Guideline to its Assembly Programming**

PUCIT

Working on the final publication draft of the paper

## ORGANIZATIONS

09/2020 - 06/2021 **Google Developer Student Club**

PUCIT

CORE TEAM - CYBER SECURITY LEAD

02/2021 - PRESENT **BSides Pakistan**

BSides

UNIVERSITY LEAD