

Telem Nahum

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Brief

Senior Security Researcher and Developer with 8 years of experience

Autodidact dedicated and passionate researcher

Team player with great interpersonal skills

Education

Ben Gurion University – M.Sc. Student, Cyber Space Security

Today

Bar Ilan University – B.Sc., Applied Mathematics

2012

High school diploma, Certificate of Excellence

2011

Work experience

Senior Crypto and Blockchain Security Researcher at Accenture Israel

2019 – Today

Blockchain Vulnerability Research

Leading several **product security assessments** to find **vulnerabilities and flaws** in client's products. Mainly focused on public\private **blockchain** platforms (Ethereum, Hyperledger). **Smart-contract vulnerability research** (including usage of dynamic and static scanning tools)

Performing **code review** for complex architectures, tracking **privacy violation** and **logic flaws** with security implications

Cryptography Assessment and Implementation

Performing **Cryptography assessment** for client's products. Finding **unsafe and wrong usage of cryptographic functions and primitives (Android Apps, private blockchain platforms)**
Design and implement cryptography parts in complex architectures (**IOT devices, Java**).

Crypto consulting (best practices of implementation, network protocols and cipher suits)

Internal Research

Leading and conducting an internal research on a Hardware Wallet, testing a **secure-chip\secure-element, bootloader** and **ARM-SVC** usage

Performing a wide study on different types of **scanning tools** for smart contracts, testing performance, accuracy and more

Mentoring and guidance of new entrants

Training, supporting and leading new joiners to get into different areas of crypto, blockchain and security research

POCs – implementation and design

Patching and reactivating real world malware, manipulating its binary through complex reversing and **patching** including **compiling and embedding code (C) into binary executable**. **IAT editing, headers and sections manipulation**

Deception (honeypots) solution, design and implement, using DevOps solutions (**containers**) and several components and **automations (PHP, Bash, Cronjobs, Docker, Python etc.)**

IDS -AI - time-series anomaly detection, design and development of a detector based on **deep learning algorithms (RNN)** for detecting targeted attacks against organizations

Presentations

Vulnerability research workshop (internal)

Code-review, heap exploitation, fuzzing (AFL), symbolic- execution and C flaws

Blockchain security workshop (external)

Solidity vulnerabilities, public and private blockchain implementation flaws

Intel-SGX architecture and usage (internal)

Use-cases, architecture, and other solutions

Malware researcher - Cyber Defense Department, IDF

2017 – 2019

Reverse engineer malwares and deep analysis behavior (Windows platform **X86, X64 assembly**). Unpack and overcome **anti-analysis techniques**. **Develop tools (python)** to improve investigation. Great experience with malware investigation tools (**debuggers, disassemblers, networking and, static tools** etc.). Basic experience with Windows kernel debugging

Unpaid Leave

2016 - 2017

Read and practice technical books as 'practical-malware-analysis' and 'practical reverse engineering'. Teach students math and computer-science related subjects.

Software Developer

2013 –2016

Develop a complicated management system in **C# and SQL**. Lead and train soldiers to perform quality assurance (QA) for different products.

Relevant Courses:

Code-review (BlackHat2020), CE-Council – CASE, Applied Cryptography (Stanford)

AI-Deep Learning Specialization (Coursera)

Network Forensics (John Bryce), Offensive C (John Bryce)

Community Contribution

Counselor in Bnei-Akiva

2009-2011

Took part in establishment of a branch in development town

Counselor in Kav-Lachayim

2012-2015

Work with children with physical and medical disabilities

Personal Skills

Curious with a desire to explore and learn, Creative, Responsible, Positive attitude, and good listener