Bilal **Retiat**

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Experience

OpenMined
Remote

CRYPTO TEAM MEMBER   *Apr. 2020 - Present*
- Developing TenSEAL, a library for doing homomorphic encryption operations on tensors.
- Doing research and experimentation on applying homomorphic encryption to deep learning.

Deloitte
Algiers, Algeria

CYBER SECURITY INTERN   *Feb. 2020 - Mar. 2020*
- Perform web applications assessments and network penetration testing.
- Document and report findings, along with remediation recommendations and validation.

Realistic Security
Remote

SYSTEM ADMINISTRATOR (PART TIME)   *May. 2019 - Dec. 2019*
- Build a penetration testing training lab.
- Ensure proper security and configurations for the infrastructure for production servers.
- Manage and maintain multiple virtual machines.

El Djazair Information Technology (ELIT)
Algiers, Algeria

CYBER SECURITY INTERN   *Sep. 2018*
- Perform WAF evasion and bypass tests on FortiWeb.

Education

ESI-SBA (Ecole Supérieure en Informatique 08 Mai 1945)
Sidi Bel Abbés, Algeria

MASTER'S DEGREE IN COMPUTER SCIENCE   *Sep. 2015 - Sep. 2020*

Core Competencies

- Problem Solving
- Penetration Testing & Exploit Development
- Reverse Engineering & Malware Analysis
- Linux System Administration
- DevOps
- Backend Web Development

Skills

Programming	Python, C, C++, GO, Shell Scripting
Frameworks & Technologies	Flask, Django, MongoDB, Redis, MariaDB, SQL, XML
DevOps	Docker, Git, Github Actions
Tools	GDB, IDA, Ghidra, Radare2
Others	x86 Assembly, ARM Assembly
Languages	Arabic (Native Proficiency), English (Professional Working Proficiency), French (Limited Working Proficiency)

Extracurricular Activity

Sudo_root (CTF team)
Algeria

CTF PLAYER   *Feb. 2017 - Present*
- Participated on a lot of CTFs (Hacking Competitions).
- Gained expertise in hacking & security areas, especially about reverse engineering, exploit development and cryptanalysis.
- Gained expertise in penetration testing & code auditing.
- Working with teammates to consistently learn and share skills.
- Successfully managed to organize and design local CTF competitions.

Projects

TenSEAL   *OpenMined, Remote*

Developer   *Feb. 2019 - Present*

- TenSEAL is a library for doing homomorphic encryption operations on tensors, built on top of Microsoft SEAL. It provides ease of use through a Python API, while preserving efficiency by implementing most of its operations using C++.

Malware Revealer   *ESI-SBA, Algeria*

Developer   *Mar. 2019 - Nov. 2019*

- Malware Revealer is a malware classification framework, designed primarily for malware detection, it contains a modular toolset for feature extraction, as well as pre-trained models and a ready to use web API for making predictions.

Volunteer Experience

Docker Sidi Bel Abbes Chapter   *Sidi Bel Abbes, Algeria*

Mentor   *Nov. 2018 - Present*

- Provide guidance and helping for newcomers.
- Provide hands-on Docker training.

ESI-SBA   *Sidi Bel Abbes, Algeria*

Python Trainer   *Jan. 2019 - Feb. 2019*

- Teaching Python core concepts.
- Provide practical workshops in Python.

ESI-SBA   *Sidi Bel Abbes, Algeria*

C Trainer   *Feb. 2019*

- Teaching fundamentals of C programming.

Honors & Awards

Aug. 2020 **1st Place**, CyberTalents - Algeria National Cyber Security CTF 2020   *Online*
Nov. 2019 **2nd Place**, CSAW'19 CTF Hacking Competition Final (MENA)   *NYUAD, Abu Dhabi, UAE*
Oct. 2019 **4th Place**, HITB+ CyberWeek - Standoff Cyberbattle 2019   *HITB+, Abu Dhabi, UAE*
Sep. 2019 **2nd Place**, CyberTalents - Arab Regional Cyber Security CTF 2019   *CSCAMP, Cairo, Egypt*
Jul. 2019 **1st Place**, CyberTalents - Algeria National Cyber Security CTF 2019   *ESI-SBA, Sidi Bel Abbes, Algeria*
Nov. 2017 **3rd Place**, CSAW'17 CTF Hacking Competition Final (MENA)   *NYUAD, Abu Dhabi, UAE*

Program Committees

Feb. 2020 **Organizer & Problem Writer**, AlphaBit Coding Challenge 2nd Edition   *ESI-SBA, Sidi Bel Abbes, Algeria*
Jan. 2020 **Organizer & Problem Writer**, Shellmates - HackINI 2k20   *ESI (ex. INI), Algiers, Algeria*
Feb. 2019 **Organizer & Problem Writer**, AlphaBit Coding Challenge 1st Edition   *ESI-SBA, Sidi Bel Abbes, Algeria*
May. 2018 **Organizer & Problem Writer**, IngeHack CTF Hacking Competition 1st Edition *ESI-SBA, Sidi Bel Abbes, Algeria*

Presentation

MLH Local Hack Day by Ingeniums Club   *ESI-SBA, Algeria*

Presenter for <Docker From A to B>   *Dec. 2018*

- Introduced the Docker Key Concepts.
- Introduced how to dockerize a Django Web Application.

DevDay2.0 by AlphaBit Club   *ESI-SBA, Algeria*

Presenter for <SQL Injection>   *Dec. 2018*

- Introduced SQL Injection describing some attack and defence techniques.
- Conducted a workshop on SQL Injection attack techniques.