

# Bilal Retiat

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## Experience

### OpenMined

CRYPTO TEAM MEMBER

Remote

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

CYBER SECURITY INTERN

Algiers, Algeria

Feb. 2020 - Mar. 2020

- Perform web applications assessments and network penetration testing.
- Document and report findings, along with remediation recommendations and validation.

### Realistic Security

SYSTEM ADMINISTRATOR (PART TIME)

Remote

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)

CYBER SECURITY INTERN

Algiers, Algeria

Sep. 2018

- Perform WAF evasion and bypass tests on FortiWeb.

## Education

### ESI-SBA (Ecole Supérieure en Informatique 08 Mai 1945)

MASTER'S DEGREE IN COMPUTER SCIENCE

Sidi Bel Abbés, Algeria

Sep. 2015 - Sep. 2020

### Lycée Delmi Bourass Ahmed

BACCALAURÉAT

Ouled Bessem, Tissemsilt, Algeria

Sep. 2012 - Jun. 2015

## Core Competencies

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

## Skills

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

## Extracurricular Activity

### Sudo\_root (CTF team)

CTF PLAYER

Algeria

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

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### TenSEAL

DEVELOPER

*OpenMined, Remote*

*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

DEVELOPER

*ESI-SBA, Algeria*

*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.

### OpenClass

BACKEND DEVELOPER

*ESI-SBA, Algeria*

*Mar. 2018 - Sep. 2018*

- A Django web application provides all the features necessary for the organization of workshops.

### ESI-LINUX

DEVELOPER

*ESI-SBA, Algeria*

*Mar. 2017 - Jun. 2017*

- Customized Linux distribution for ESI-SBA students provides all the necessary tools for their curriculum.

## Volunteer Experience

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### Docker Sidi Bel Abbes Chapter

MENTOR

*Sidi Bel Abbes, Algeria*

*Nov. 2018 - Present*

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

### ESI-SBA

PYTHON TRAINER

*Sidi Bel Abbes, Algeria*

*Jan. 2019 - Feb. 2019*

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

### ESI-SBA

C TRAINER

*Sidi Bel Abbes, Algeria*

*Feb. 2019*

- Teaching fundamentals of C programming.

## Honors & Awards

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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

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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

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### MLH Local Hack Day by Ingeniums Club

PRESENTER FOR <DOCKER FROM A TO B>

*ESI-SBA, Algeria*

*Dec. 2018*

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

### DevDay2.0 by AlphaBit Club

PRESENTER FOR <SQL INJECTION>

*ESI-SBA, Algeria*

*Dec. 2018*

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