بسم الله الرحمن الرحيم

HANAA ALY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

HANAA ALY

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

**نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات**

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

HANAA ALY

AIN SHAMS UNIVERSITY
FACULTY OF ENGINEERING
Computer and Systems Engineering Department

Detecting Violent Extremists in Social Media using Machine Learning Approaches

A Thesis submitted in partial fulfillment of the requirements of the degree of

Master of Science in Electrical Engineering
(Computer and Systems Engineering)
by

Ahmed Ibrahim Ahmed Abd-Elaal

Bachelor of Science in Electrical Engineering
(Computer and Systems Engineering)
Faculty of Engineering, Ain Shams University, 2012

Supervised By

<table>
<tr><td>Prof. Dr. Hani M. K. Mahdi</td><td>Prof. Dr. Ahmed Z. Badr</td></tr>
<tr><td>Professor of Computer Systems</td><td>Professor of Control Systems</td></tr>
<tr><td>Computer and Systems Engineering Department</td><td>Computer and Systems Engineering Department</td></tr>
<tr><td>Faculty of Engineering, Ain Shams University</td><td>Faculty of Engineering, Ain Shams University</td></tr>
</table>

Cairo – 2021

AIN SHAMS UNIVERSITY
FACULTY OF ENGINEERING
Computer and Systems Engineering Department

Detecting Violent Extremists in Social Media using Machine Learning Approaches

By

Ahmed Ibrahim Ahmed Abd-Elaal
Master of Science in Electrical Engineering

(Computer and Systems Engineering)

Faculty of Engineering, Ain Shams University, 2021

Examiners' Committee

Name and Affiliation	Signature
Prof. Dr. Mohamed Essam Ahmed Mokhtar Khalifa Faculty of Computer and Information Sciences, Ain Shams University	…………….
Prof. Dr. Mahmoud Ibrahim Khalil Computer and Systems Engineering Department, Faculty of Engineering, Ain Shams University	……………….
Prof. Dr. Hani M. K. Mahdi Computer and Systems Engineering Department, Faculty of Engineering, Ain Shams University	……………….
Prof. Dr. Ahmed Z. Badr Computer and Systems Engineering Department, Faculty of Engineering, Ain Shams University	……………….

Statement

This thesis is submitted as a partial fulfillment of Master of Science in Electrical Engineering, Faculty of Engineering, Ain Shams University.

The author carried out the work included in this thesis, and no part of it has been submitted for a degree or a qualification at any other scientific entity.

Ahmed Ibrahim Ahmed Abd-Elaal

Signature

…………...………..

Researcher Data

Name: Ahmed Ibrahim Ahmed Abd-Elaal

Date of birth: 8/10/1989

Place of birth: Cairo, Egypt

Last academic degree: Bachelor of Science

Field of specialization: Electrical Engineering (Computer and Systems Engineering)

University issued the degree: Ain Shams University

Date of issued degree: July, 2012

Current job: Engineer Officer

Acknowledgment

In the name of Allah the Merciful

First of all, I am very thankful to God Almighty for providing me with the health, patience and knowledge to complete this work.

I would like to thank my supervisors: Prof. Dr. Hani M. K. Mahdi, and Prof. Dr. Ahmed Z. Badr, Computer and Systems Engineering Department of Ain Shams University, Especially, Prof. Dr. Hani M. K. Mahdi who had provided me with great help, advice, guidance and kindness, without these I would not have been able to complete this work. Grateful thanks to Prof. Dr. Ahmed Z. Badr for supporting the supervision of this thesis.

Thanks to my leaders and commanders in Egyptian Army Forces and special thanks to my commanders in Military Intelligence Agency for their understanding of the importance of this work.

Finally, I would like to thank my family, and my friends for their continuous support.

List of Publications

- Ahmed I. A. Abd-Elaal, Ahmed Z. Badr and Hani M. K. Mahdi, "Detecting Violent Radical Accounts on Twitter" International Journal of Advanced Computer Science and Applications IJACSA , 11(8), 2020 .
  http://dx.doi.org/10.14569 /IJACSA.2020.0110865