PERSONAL INFORMATION

Ayat Mohammad Droos, MSc in Cybersecurity

Jordan - Zarqa

ayatmohammad596@gmail.com

Gender Female | Date of birth 05/09/1997 | Nationality Jordanian

EDUCATION

2023 Master's degree in information systems security and digital Criminology – Princess Sumaya University for Technology.

GPA: 86.4 % (Very Good)

2020 Bachelor's degree in computer information systems – Hashemite University.

GPA: 3.78 / 4 (Excellent, Ranked #2 in the graduating class)

PROGRAMMING LANGUAGES

Java, C++, Python, C, JavaScript, SQL, VB, QB, PL/SQL, HTML, and CSS.

- *I can learn any programming language quickly and easily.*

WORK EXPERIENCE

- **Assistant Instructor at Zarqa University (10/2024 – 9/2025), Courses:**
  - Computer Network.
  - Web programming 1.
  - Web programming 1 Lab.
  - Computer skills.
  - Computer programming 1.
  - Computer programming 1 Lab.
  - Database systems.
- **Part-time lecturer at PSUT (3/2024-6/2024) (2/2025 – 8/2025), Courses:**
  - Object Oriented Programming Lab (C++).
  - Database systems Lab.
- **Research Assistant at PSUT (10/2021-6/2022).**
  - Worked with Dr. Qasem Abu Al-Haija on his research projects.
- **Teaching Assistant at PSUT (10/2020-6/2022), Courses:**
  - Object Oriented Programming (C++).
  - Object Oriented Programming Lab (C++).
  - Structured Programming (C).
  - Database systems.
- **Computer Lab Technician (09/06 – 02/08/2019) at Hashemite University. (Training)**

GRADUATION PROJECT

Bachelor's Graduation Project: "Ambulance Decision Support".

A system was developed using machine learning to help emergency dispatchers accurately assess the seriousness of road accidents. This system made it easier to provide effective treatment to accident victims. The project had two phases:

Classifier development and Android Application.

Master's Graduation Project: "Resilient intrusion detection system for adversarial attacks on Low-Rate DDoS."

A research project was conducted to investigate the vulnerabilities of Intrusion Detection Systems (IDS) when facing adversarial attacks. The project culminated in developing a novel framework utilizing Generative Adversarial Networks (GANs) to generate adversarial examples capable of fooling IDS. The project was carried out in two phases: the construction of IDS models and the generation of adversarial examples designed to evade detection by IDSs.

OPEN-SOURCE TOOLS

Weka, FTK imager, RATS, 010 Editor, WinHex.

- *I can learn any tool quickly and easily.*

SOFT SKILLS

Research Skills, Problem-Solving Skills, Communication Skills, and Lifelong Learning Skills.

NATURAL LANGUAGES

	Listening	Reading	Speaking	Writing
Arabic	MOTHER LANGUAGE			
English	Very Good	Excellent	Very Good	Excellent

CONFERENCES AND WORKSHOPS

11-13 April 2016	9th Int. Conf. on the Geomatics of Middle East & North Africa, Jordan.
September 2019	Weka workshop, Hashmite University (HU).
8 June 2022	Scientific Day, Princess Sumaya University for Technology (PSUT).
21-23 June 2022	2022 13th Int. Conf. on Info. and Comm. Systems (ICICS), Jordan.
6-8 December 2022	6th Smart Cities Symposium (SCS 2022), University of Bahrain.

RESEARCH PUBLICATIONS

1. ***Droos, A.,*** *Mahadeen, A., Harasis, T., Al-Attar, R., & Ababneh, M. "Android Malware Detection Using Machine Learning".* 13th International Conference on Information and Communication Systems (ICICS), 2022, IEEE. **(Scopus)**
2. ***Droos, A.,*** *Al-Haija, Q. A., & Alnabhan, M. "Lightweight detection system for low-rate DDoS attacks on software-defined IoT."* 6th Smart Cities Symposium (SCS), IET and IEEE, 2022. **(Scopus)**

3. *Snober, M. A.; **A. Droos;** & Al-Haija, Q. A. "Prevention of phishing website attacks in online banking systems using visual cryptography."* 6th Smart Cities Symposium (SCS), IET and IEEE, 2022. **(Scopus)**
4. *Ababneh, M., **Al-Droos, A.**, & El-Hassan, A. (2024). Modern mobile malware detection framework using machine learning and random forest algorithm. Computer Systems Science and Engineering, 48(5), 1171-1191. https://doi.org/10.32604/csse.2024.052875.* **(Scopus)**
5. *Al-Haija, Q. A & **A. Droos**, (2024). A comprehensive survey on deep learning-based intrusion detection systems in Internet of Things (IoT). Expert Systems. https://doi.org/10.1111/exsy.13726 .* **(ISI + Scopus)**
6. *Abu Al-Haija, Q., Droos, A. Resilient intrusion detection system for adversarial attacks on Low-Rate DDoS. Int. J. Mach. Learn. & Cyber. (2025). https://doi.org/10.1007/s13042-025-02734-6.* **(ISI + Scopus)**
7. *Hreiz, R. , Hadi, A. Atoum, J. , Alkaissi, Q. & **A. Droos**, Anomaly Detector for HTTP Protocol, 6th International Conference on Electrical, Communication and Computer Engineering (ICECCE 2025).* **(Scopus)**

REFERENCE

Dr. Mohammad Ababneh, Head of Department, Cybersecurity, PSUT, Jordan, Mobile: +962799391356, E-mail: m.ababneh@psut.edu.jo.

Dr. Mohammad Aljaidi, Head of Department, Cybersecurity, Zarqa University, Jordan, Mobile: +962786731782, E-mail: mailto:mjaidi@zu.edu.jo.

Dr. Qasem Abu Al-Haija, Head of Department, Cybersecurity, JUST, Jordan, Mobile: +962792668777, E-mail: qsabuhaija@just.edu.jo.

Dr. Raghdah Hreiz, Department of Computer Science, PSUT, Jordan, Mobile: +962787147375, E-mail: r.hriez@psut.edu.jo..