

Omar S. Mossad

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| Education | PhD in Computing Science Simon Fraser University, Canada. CGPA: 3.83 | Sep. 2019 – 2023 (Expected) |
| | M.Sc. in Computer and Systems Engineering Faculty of Engineering, Alexandria University, Egypt. Courses are completed with GPA: 3.92 Thesis: Applications of Artificial Intelligence in Wireless Communications. | Sep. 2016 – Jul. 2019 |
| | B.Sc. in Computer and Communications Engineering Faculty of Engineering, Alexandria University, Egypt. Ranked First with GPA: 3.87 . | Sep. 2008 – Jun. 2013 |
| Research Experience | Research Assistant Network and Systems Lab, Computing Science, Simon Fraser University, Canada. Developing Deep Learning models for Region-Of-Interest detection in Cloud Gaming. Research collaboration with AMD to develop the next-generation cloud gaming. | Sep. 2019 – Present |
| | Research Assistant Computer and Systems Engineering Department, Alexandria University, Egypt. Worked on applying machine learning techniques in wireless communications, specifically in spectrum sensing, modulation schemes recognition and cognitive radios. | Jun. 2016 – Aug. 2019 |
| | Research Assistant Collaborative Radio Cloud (CRC), SmartCI Research Center, Alexandria University, Egypt. <ul style="list-style-type: none">- Participants in Spectrum Collaboration Challenge 2 (SC2) which is organized by Defense Advanced Research Projects Agency (DARPA) in USA. The competition's target is to implement a software defined radio (SDR) system that can collaborate with other systems to utilize the spectrum for all networks.- Part of the team implementing the Collaborative Radio Cloud (CRC) Wireless Testbed that has a scalable and modular architecture with a full experimental protocol stack to enable web/remote access to the testbed in order to facilitate communication and networking research experiments, especially for Egyptian researchers and practitioners. | Jun. 2016 – Aug. 2019 |

**Work
Experience**

Teaching Assistant

Jun. 2015 – Aug. 2019

Computer and Systems Engineering Department,
Faculty of Engineering, Alexandria University, Egypt.

Software Engineer

Uniliver, Alexandria, Egypt.

My work included the following:

- Development of Web applications for Business requirements using Java.
- Investigate and execute a migration plan to convert multiple Oracle databases to MySQL.

Software Intern

Orange Business Services, Cairo, Egypt.

The internship included:

- Linux bash scripting sessions.
- Application hosting and development.
- Servers maintenance.

Engineering Intern

Vodafone Telecom, Alexandria, Egypt.

The internship included:

- Mobile Communication sessions.
- LTE and State of Art Communication paradigms.
- Hardware for Telecom Operators.

Publications

[1] Omar S. Mossad, K. Diab, M. Hefeeda and I. Amer, "**DeepGame: Efficient Video Encoding for Cloud Gaming**" in *2021 29th ACM International Conference on Multimedia (ACMMM) Chengdu, China. (accepted: July 2021)*

[2] Omar S. Mossad, Mustafa Y. ElNainay, and Marwan Torki, "**Deep Convolutional Neural Network with Multi-Task Learning Scheme for Modulations Recognition**" in *2019 15th International Conference on Wireless Communications and Mobile Computing (IWCMC) Tangier, Morocco.*

[3] Omar S. Mossad, Mustafa Y. ElNainay, "**Genetic Algorithm -based Crowdsensing for Cognitive Radio Networks**" in *2018 14th International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob) Limassol, Cyprus.*

[4] Omar S. Mossad, , "**FAT ALBERT: Finding Answers in Large Texts using Semantic Similarity Attention Layer based on BERT**" *2020 Arxiv Pre-print*

Extracurricular Activities and Honors

- Voted outstanding teaching assistant in the department of Computer and Systems Engineering, Faculty of Engineering, Alexandria University.
- Honored yearly during my undergraduate years for being top of the class.
- Took part as instructor for the following summer trainings:
 - Linux introduction and Cloud Computing (2 month during Summer 2017)
 - Internet of Things using Arduino (1 month during Summer 2017)
- Provided assistance and guidance for multiple graduation projects in the fields of deep learning and embedded systems.
- Implementing extra-curricular programs for Faculty of Engineering, Alexandria University.
- Co-organized the Arduino Day event in Alexandria, Egypt for 2 consecutive years.
- Chief member of an astronomy club responsible for hosting events and sessions in cooperation with the library of Alexandria (Bibliotheca Alexandrina).

Languages

- **Arabic** native speaker.
- **English** bilingual proficiency.
IELTS GT score 8.0 : reading 9.0 – listening 8.5 – speaking 8.0 – writing 7.0
- **French** professional working proficiency
DELPH B2 Certified.

Skills

- Programming and Scripting Languages: C, C++, Java, Matlab, Python and Linux Bash Scripting.
- Machine Learning: Nvidia CUDA, tensorflow, pytorch.

Research Interests

- Machine learning applications for cloud gaming.
 - Region-of-Interest Detection.
 - Human visual attention modelling.

Links

[Github](#)
[Google Scholar](#)
[LinkedIn](#)
[Website](#)