

CURRICULUM VITAE – KHALED M. EL-WAZAN

PERSONAL INFORMATION

Khaled M. El-Wazan
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I was born and raised in Alexandria where I have lived all my life, currently I am living alone. I have always been very interested in computer science, and by studying physics and mathematics, I had the opportunity of studying all combination of these three subjects. Currently, I work as a research and teaching assistant at mathematics and computer science department at Faculty of Science, which is quite ideal for me because I'm very passionate about learning new topics in computer science and communicating the acquired knowledge to students.

In my free time, I enjoy sports. I'm a regular weightlifter; I hit the gym about 5 days per week, and swimming classes and basketball training about two times a week. Beside sports, I love reading novels, especially horror and science fiction genres. My favorite authors are Stephen King, Joe Hill and Douglas Adams.

EDUCATION

PhD in Computer Science (2021-Ongoing) *Aims and Objectives:* Design and implementation of optimization strategies for the development of quantum circuits.

Master's degree in Mathematics: Computer Science (Quantum Computations) from the University of Alexandria, Egypt (2015-2018). *Thesis advisers:* Prof. [Ahmed Younes](#) and Prof. [Salah B. Doma](#). *Thesis title:* *Quantum Algorithms for Testing and Learning Boolean Functions*. Designing quantum algorithms for finding junta variables in a Boolean function provided as a black-box and learning certain Boolean functions.

Bachelor degree in computer science from the University of Alexandria, Egypt (2008-2012). *Thesis adviser:* Dr. [Ashraf Elsayed](#). *Thesis title:* *Intelligent E-Learning Systems via Means of Computer Vision*.

CURRENT AFFILIATIONS

Academy of Scientific Research and Technology(ASRT)
Department of Mathematics and Computer Science, Faculty of Science

JOB EXPERIENCES

2020 March → Present Working on a funded research project by the ASRT.

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| | <p>2013 July → Present Employed as a research and assistant lecturer at Faculty of Science, Alexandria University, Egypt.</p> <p><i>Tasks:</i> includes academic research, tutor/mentor students, hand out assignments and grade papers, meet with students during office hours, help professors develop course plans, teach undergraduate courses and take attendance and record responses.</p> <p><i>Courses:</i> Discrete Structures, Structured Programming using C, Object Oriented Programming using Java, Data Structures using C++ , Algorithm Analysis and Design, Computational Complexity, Computer Architecture, Operating Systems Concepts and Design, Compiler Design and Construction, Information Storage and Retrieval, Distributed Systems, Theory of Computation and Multimedia Systems and Applications.</p> <p>2017 July → December 2020 Joined a research group at Alexandria University, Alexandria Quantum Computing Group.</p> <p>2015 February → 2018 July Employed as a teaching assistant at Faculty of Engineering, Alexandria University, Egypt.</p> <p><i>Tasks:</i> includes tutor/mentor students, hand out assignments and grade papers, meet with students during office hours, help professors develop course plans, teach undergraduate courses and take attendance and record responses.</p> <p><i>Courses:</i> Multimedia Systems and Applications, Switching Theory.</p> |
| EXTRACURRICULAR ACTIVITIES | <p>2014 October → 2016 August Coached Faculty of Science ACM teams to the final rounds at Egyptian Collegiate Programming Contest (ACM-ECPC).</p> |
| PUBLISHED PAPERS | <p>Mohamed Osman, and Khaled El-Wazan. "Efficient Designs of Quantum Adder/Subtractor Using Universal Reversible Gate on IBM Q."Symmetry 13.10 (2021) doi: 10.3390/sym13101842.</p> <p>Khaled El-Wazan, "A Quantum Algorithm for Finding Common Matches between Databases with Reliable Behavior,"Quantum Information Review, vol. 6, pp. 1-6 (2019) doi: 10.18576/qir/060101.</p> |
| REPORTS | <p>Khaled El-Wazan, "Measuring Hamming Distance between Boolean Functions via Entanglement Measure ,"pp. 1–12, 2019. [Online]. Available: 1903.04762.</p> <p>Khaled El-Wazan, Ahmed Younes and Salah B. Doma, "A Quantum Algorithm for Testing Junta Variables and Learning Boolean Functions via Entanglement Measure,"pp. 1–15, 2017. [Online]. Available: 1710.10495.</p> |
| CONFERENCE CONTRIBUTIONS | <p>Khaled El-Wazan, Ahmed Younes and Salah B. Doma, "A Quantum Algorithm for Testing Juntas in Boolean Functions,"<i>One day conference of Quantum Computer and Quantum Information</i>, Faculty of Science, Alexandria University, Egypt, 2016. [Online]. Available: 1701.02143.</p> |

TRAINING COURSES
AND CERTIFICATES

- Ethical Conduct and Code of Ethics (IBCT-FLDC).
- Global Databases Usage (IBCT-FLDC).
- Research Methods (IBCT-FLDC).
- Presentation Skills (IBCT-FLDC).
- Rights and Duties of University Staff Assistants (IBCT-FLDC).
- Experimental Design and Statistical Analysis Systems (IBCT-FLDC).
- Japanese Language Proficiency (JF).

COMPUTER SKILLS

Operating systems Advanced experience with most flavors of Linux, *e.g.* Ubuntu, Mint and Debian. Experienced with Microsoft Windows and Mac OSX to some extent.

Servers and databases Apache2, NoSQL, GlassFish, MySQL, ESXI Hypervisor, VMWare vSphere, Apache Hadoop and Apache Pig.

Programming, scripting and markup languages Python, Bash (daily) and JavaScript. \LaTeX , PHP, HTML, Octave (Often). C, C++, C sharp, Java SE and EE, Android SDK, Flutter SDK, Nodejs, FORTRAN and Pig Latin.

LANGUAGE SKILLS

My mother tongue is Arabic, but almost everything I write is in English, both in connection to computers in general on my blog [Quantum Algorithms and Quantum Computations](#) and in academic and scientific work. **Arabic:** Native tongue. **English:** Intermediate. **Japanese:** Beginner level (JLPT N5 Certified).