

CURRICULUM VITAE – KHALED M. EL-WAZAN

PERSONAL INFORMATION	<p>Khaled M. El-Wazan Research and Assistant Lecturer, Mathematics and Computer Science Department, Faculty of Science, Alexandria University, Egypt. <i>Tel:</i> +20 01228068942 <i>Email:</i> khaled_elwazan@alex-sci.edu.eg <i>github:</i> https://github.com/KhaledElwazan <i>Orcid:</i> https://orcid.org/0000-0002-8193-1602</p>
EDUCATION	<p>PhD in Computer Science (2021-Ongoing) <i>Aims and Objectives:</i> Design and implementation of optimization strategies for the development of quantum circuits.</p> <p>Master's degree in Mathematics: Computer Science (Quantum Computations) from the University of Alexandria, Egypt (2015-2018). <i>Thesis advisers:</i> Prof. Ahmed Younes and Prof. Salah B. Doma. <i>Thesis title:</i> <i>Quantum Algorithms for Testing and Learning Boolean Functions</i>. Designing quantum algorithms for finding junta variables in a Boolean function provided as a black-box and learning certain Boolean functions.</p> <p>Bachelor degree in computer science from the University of Alexandria, Egypt (2008-2012). <i>Thesis adviser:</i> Dr. Ashraf Elsayed. <i>Thesis title:</i> <i>Intelligent E-Learning Systems via Means of Computer Vision</i>.</p>
CURRENT AFFILIATIONS	<p>Academy of Scientific Research and Technology(ASRT) Department of Mathematics and Computer Science, Faculty of Science</p>
JOB EXPERIENCES	<p>2020 March → 2022 Worked on a funded research project by the <i>Academy of Scientific Research and Technology (ASRT)</i>. We were able to secure a fund from ASRT to continue our work on quantum circuit development and optimization. Our work was published in a Q2 journal, and can be found here doi: 10.3390/sym13101842.</p> <p>2013 July → Present Employed as a research and assistant lecturer at Faculty of Science, Alexandria University, Egypt. <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. <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,</p>

Information Storage and Retrieval, Distributed Systems, Theory of Computation and Multimedia Systems and Applications.

2017 July → December 2020 Joined a research group at Alexandria University, [Alexandria Quantum Computing Group](#).

2015 February → 2018 July Employed as a teaching assistant at Faculty of Engineering, Alexandria University, Egypt.

Tasks: 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.

Courses: Multimedia Systems and Applications, Switching Theory.

EXTRACURRICULAR
ACTIVITIES

2014 October → 2016 August Coached Faculty of Science ACM teams to the final rounds at Egyptian Collegiate Programming Contest (ACM-ECPC).

GRANTS

2020 March → 2022 Worked on a funded research project by the *Academy of Scientific Research and Technology (ASRT)*, *Grand number 6614*. Our work was published in a Q2 journal [doi: 10.3390/sym13101842](#).

PUBLISHED PAPERS

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](#).

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](#).

REPORTS

Khaled El-Wazan, "Measuring Hamming Distance between Boolean Functions via Entanglement Measure", pp. 1–12, 2019. [Online]. Available: [1903.04762](#).

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](#).

CONFERENCE
CONTRIBUTIONS

Khaled El-Wazan, Ahmed Younes and Salah B. Doma, "A Quantum Algorithm for Testing Juntas in Boolean Functions," *One day conference of Quantum Computer and Quantum Information*, Faculty of Science, Alexandria University, Egypt, 2016. [Online]. Available: [1701.02143](#).

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	<p>Operating systems Advanced experience with most flavors of Linux, <i>e.g.</i> Ubuntu, Mint and Debian. Experienced with Microsoft Windows and Mac OSX to some extent.</p> <p>Servers and databases Apache2, NoSQL, GlassFish, MySQL, ESXI Hypervisor, VMWare vSphere, Apache Hadoop and Apache Pig.</p> <p>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.</p>
LANGUAGE SKILLS	<p>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).</p>