


UTKU BIRKAN

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EDUCATION

- 2018 – Present **BSc Computer Engineering (Double Major)**
Middle East Technical University – *Ankara, Turkey*
Cumulative GPA: 3.90
- 2017 – Present **BSc Physics**
Middle East Technical University – *Ankara, Turkey*
Cumulative GPA: 3.50

RESEARCH EXPERIENCE

- 2020 – Present **Undergraduate Researcher** (08/2020 – Present)
Research Intern (07/2020 – 08/2020)
QWorld Association – *Lativa*
P.I.: Abuzer Yakaryılmaz, PhD and Özlem Salehi, PhD
- Work on “Implementing Quantum Finite Automata Algorithms on Noisy Devices” project as a part of QWorld’s QResearch Program.
 - Study the mathematical modelling of quantum finite automata and their language recognition power for some specific languages.
 - Investigate architecture specific optimisations for the studied automata.
 - Conduct experiments using IBM’s quantum computers.
 - Oversee the preparation of project manuscript and poster presentation.
- Manuscript in preparation:**
Birkan, U., Salehi, Ö., Olejar, V., Nurlu, C., & Yakaryılmaz, A. (2021). *Implementing Quantum Finite Automata Algorithms on Noisy Devices*. Manuscript in preparation.

POSTER PRESENTATION

- Birkan, U., Salehi, Ö., Olejar, V., Nurlu, C., & Yakaryılmaz, A. (2021). *Implementing Quantum Finite Automata Algorithms on Noisy Devices*. Presented at the Conference on Quantum Information Processing, Munich, Germany.

PROFESSIONAL & VOLUNTEER EXPERIENCE

- 2019 – Present **Leading Member**
QTurkey – *Turkey*
- A part of the *Train the Trainers* education program, developed in cooperation with Microsoft.
 - Develop Jupyter based education material as a part of the educational committee.
 - Volunteered as an instructor or a mentor in various “Introduction to Quantum Computing” workshops.
 - Helped organise a seminar on quantum computing.
- 2018 – Present **Member**
METU Life Saving and First Aid Society – *Turkey*
- Volunteer as an instructor, teaching first aid to the local community and university members.

QUALIFICATIONS

Languages	– Native Turkish	– Advanced English
Computer Skills	Programming Languages	
	– C/C++	– Python
	– Q#	– Swift
	– \LaTeX	– Haskell
	Technologies/Frameworks	
	– git and Github	– Qiskit

HONOURS, CERTIFICATES & AWARDS

- 2020 **First Team Award for the Best Project**, QWorld Association
- 2018 – Present **First Aid License**, Turkish Red Crescent
- 2017 – Present **High Honor List**, Middle East Technical University
- 2017 – Present **Undergraduate Scholarship Program**, TÜBİTAK (The Scientific and Technological Research Council of Turkey)
Awarded due to high ranking in National University Entrance Examination.