

David Ponarovsky, PhD student.

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Employment History

- 2024 - now ■ **T.A. Quantum Information Lecturer.**
Taking part in constructing a new course at the Hebrew University, including writing recitations and exercises from scratch.
- 2022 - 2024 ■ **T.A. Data Structures Lecturer.**
Teaching the data structures course. At the Hebrew University, the course is considered as the first theoretical course in computer science. Apart from teaching, the role also requires writing the exam and the exercises.
- 2024 ■ **IBM Quantum. PhD Student Intern.**
Been responsible for 'protobufing' the quantum circuits sent to be executed on the quantum hardware. In addition, taking part in integrating known error mitigation solutions into IBM flow.
- 2020 ■ **Algorithm Developer, Mobileye.**
In the Dynamic Road Experience Management department, which develops a (part of) map of temporary changes such as construction sites, potholes, and traffic jams. The map designed to serve the autonomous vehicles.
- 2015 - 2018 ■ **Soldier, Sergeant, Platoon Sergeant.** *Serving in Infantry (In Israel, There is a duty service of three years). I had the right to lead a class. I am proud to say that my lieutenant, while I was rocky, was also the platoon deputy commander when I was a rocky sergeant and my platoon commander during my term as a platoon sergeant. Which points out that people are choosing to rework with me.*
- 2014 - 2015 ■ **Backend Developer, AOL Israel (AOL Video).**
My team at AOL Israel was responsible for embedding a purchased startup. That includes re-encoding videos of the legacy version into a new one. I was still a high student at that time, and my term there lasted till my recruiting day.

Education







- 2022 - now ■ **PhD. Computer Science, Hebrew University Of Jerusalem**
In Quantum Computation. Trade-offs of computing Fault Tolerantly, Different noise models, The classical overhead which has to be paid.
- 2021 - 2022 ■ **M.Sc. Computer Science, Hebrew University Of Jerusalem**
In Quantum Computation. Focusing on Fault Tolerance, Good qLDPC Codes, And Error Detection.
- 2018 - 2021 ■ **B.Sc. Computer Science and Physics, Double major, Hebrew University Of Jerusalem.**
- 2016 ■ **Combat Sergeants School, Bnei Brak.**
Qualified as squad commander (structure of 12 infantry soldiers). The course includes both combat and general command-management skills.
- 2013 - 2014 ■ **Computer Science Olympiad National Camp.**
Been a part of an extremely selected group trained to present Israel at the international olympiad of informatics (IOI).
- 2012 - 2014 ■ **several B.Sc. Mathematics Courses, Tel Aviv University.**
During high school, I took first-year courses in Mathematics.

Skills


- Coding  *Python, C, C++, C#, Java, javascript ..., git, linux (and windows) autimations, bash, vim (vim-script), gcc, cmake ..., numpy, scipy, galois, sympy, networkx, ..., \LaTeX , tikz ..., I am coding sience I rember my self and higly exprinced in purching new programing skills. The github account above testifes that.*
- Theortical  *Have the ability to both understood and implement paper, ideas, and algortihms. I am consid-ering myself as gifted when it comes to computer science, Meaning that at relative short time I undersrand the motivation, and point on the hardness of unfimilar new topic.*
- Mastring.  *I invested during my master a two years in the studies of LDPC quantum error correction codes including the novel constructions of the good qLDPC codes.*

Miscellaneous Experience

Awards and Achievements

- 2012 – 2014  **Mathematical and Programming Competition Participation (without winning)** *I regularly participated at the national math olympiad (Gilis), Grossman olympiad, Tournament of the Towns, Code-Guro, Skillz (8200 competition) and more, most of the times I didn't win any prize. The achievements are listed in the following bullets.*
- 2014  **Tournament of the Towns.** *Extreamly hard math contest - commendable grade.*
 **Computer Science National Olympiad.** *I got into stage C, preparation for the top 30 high school students, to the international contest. And during that stage, I was ranked among the top ten competitors.*
- 2018  **Dean Prize and Scholarship for Outstanding Student Performance.** *During my first year, I won the dean's prize award. It's also worth mentioning that in that year, I accumulated 70 right points (the standard program requires roughly 40 points), Including all the obligatory theoretical computer science courses.*
- 2022  **Master Outstanding Schoolership and Founding.** *I completly founded by the faculty.*
 **Classiq Competition.** *I participated in Classiq computation, in which the task was to write a circuit that simulates a given Hamiltonian at a certain accuracy and minimal depth.*

IRON SWORDS

- 2023 – 2024  **Reserve.** *Had recruited on the morning of 7/10. Served more than 200 days, on three rounds.*

References

Available on Request