

Avi Kadria

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Profile

MSc Computer Science graduate from Bar-Ilan University and former IDF officer with 5+ years of R&D experience in Unit 8200. My academic journey began early, **completing my BSc during high school** and advancing to an MSc with **multiple publications in SODA, a valued peer-reviewed conference**. I presented my work at these international conferences. This academic foundation complements my extensive experience in Unit 8200, where I designed several systems, led critical cyber projects, recruited for 'ARAM', and **built a new security team of engineers from the ground up**. I was recently discharged and am now continuing my PhD full-time, where I research various algorithms for distance-related problems.

Education

Bar-Ilan University

Ramat Gan, Israel

PhD in Computer Science

Oct 2023 - Now

- Won the prestige Clore scholarship for exceptional Phd Students.
- Won the The Feder Family Award for Best Student Work in Communications.
- Studying distance-related graph problems. **Distance Oracles**.

Bar-Ilan University

Ramat Gan, Israel

MSc in Computer Science

Oct 2017 - Mar 2023

- Researched **girth approximations**, published and presented two papers in the prestigious conferences of **SODA'22** and **SODA'23**.
- Collaborated with **leading global experts** in distance-related problems.
- Recipient of the "Nadav" scholarship for exceptional research, as the sole master's student selected.
- Started During the third year of the BSc, and was a full-time officer at the IDF for most of the degree.

Bar-Ilan University

Ramat Gan, Israel

BSc in Computer Science and Pure Mathematics

Jul 2015 - Aug 2018

- Graduated with honors at the age of 17.
- Started in 9th grade and pursued studies in parallel with my high school education.

Publications

Compact Routing Schemes in Undirected and Directed Graphs

Avi Kadria, Liam Roditty

39th International Symposium on Distributed Computing, DISC 2025, Berlin, Germany, October 27-31, 2025, 2025

New Approximate Distance Oracles and Their Applications - **best paper winner award**

Avi Kadria, Liam Roditty

36th International Symposium on Algorithms and Computation, ISAAC 2025, Tainan, Taiwan, December 7-10, 2025, 2025

Improved girth approximation in weighted undirected graphs

Avi Kadria, Liam Roditty, Aaron Sidford, Virginia Vassilevska Williams, Uri Zwick

Proceedings of the 2023 ACM-SIAM Symposium on Discrete Algorithms, SODA 2023, Florence, Italy, January 22-25, 2023, 2023

Algorithmic trade-offs for girth approximation in undirected graphs

Avi Kadria, Liam Roditty, Aaron Sidford, Virginia Vassilevska Williams, Uri Zwick

Proceedings of the 2022 ACM-SIAM Symposium on Discrete Algorithms, SODA 2022, Virtual Conference / Alexandria, VA, USA, January 9 - 12, 2022, 2022

Military Service

Unit 8200

Tel Aviv, Israel

Cyber R&D Team Lead

May 2022 - May 2024

- Formed a new team of Cyber R&D developers to solve crucial problems in the core of the unit's operations.
- Multidisciplinary team operating at cyber security and intelligence interface. Worked in **Python, C, ASM, HTML/JS, and SQL**.
- Mentored new team members and developed the team's training program from the ground up.
- Led numerous cross-team projects, managing timelines, coordinating tasks, and ensuring successful delivery

Unit 8200

Tel Aviv, Israel

Recruitment officer for ARAM, GA'ASH, and ARAZIM

Aug 2021 - May 2022

- Conducted over 500 interviews with all relevant applicants.
- Oversaw and modified the entire recruitment process for the most elite tracks of Unit 8200.
- Recipient of the "Nadav" scholarship for exceptional research, as the sole master's student selected.
- Started During the third year of the BSc, and was a full-time officer at the IDF for most of the degree

Unit 8200

R&D engineer

Tel Aviv, Israel

Feb 2019 - Aug 2021

- Expertise in practical cyber security operations in Windows OS-based environments. Worked mainly in **Python and C++**.
- Expertise in complex networks and cyber-security within large organizations.
- Developed new systems and optimized existing methods to increase efficiency and achieve outcomes previously unattainable.

Work Experience

D.S.E

Algorithms Engineer

U.S.A

May 2018 - Feb 2019

- Applied linear programming to develop and optimize various employee scheduling algorithms.
- Collaborated with multi-country teams and managed timelines to ensure seamless coordination and project success.

Bar Ilan University

Teaching Assistant

Tel Aviv, Israel

Jul 2018 - Feb 2019

- Taught various classes including Intro to CS, Computer Structure, Algorithms 1, Probability, Calculus 1, and Discrete Mathematics.
- Designed tests and assignments, supervised assignment grading, and evaluated exams.

Bar Ilan University

Private tutor

Tel Aviv, Israel

Jul 2018 - Feb 2019

- Taught mainly math and computer science in levels ranging from high school to first degree.
- Organized and led intensive study marathons to support struggling students in successfully completing their degrees.

Royal Madness

Co-Founder

Tel Aviv, Israel

Mar 2016 - Aug 2017

- Development of a cross-platform client-server made in the Unity3D game engine (C# and Java).

Skills and Interests

Programming Python, C, C++, Rust, ASM, (basic level in Java, C#, HTML, JS, SQL, MATLAB, etc.)

Miscellaneous Git, bash, Docker, LaTeX, Hebrew (native), English (fluent), French (passable).

Interests Reading, Video games, Chess, Bughouse.