



# Amir Rubin | computer science doctoral candidate

Vered 46 – Matan – Israel

☎ +972 (544) 589 453 • ✉ amirubin87@gmail.com

## Biography

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Amir Rubin is a doctoral candidate in computer science at Ben-Gurion University of the Negev, where he completed his master degree in 2016. His main research interests include complex network analysis, big-data, application of machine learning techniques, specifically in the domain of cyber security, and combinatorial subjects such as De-Bruijn sequences. The focus of Rubin's research is on developing algorithms for community detection, and applying variants of them for solving problems in the domain of cyber defense. For the past three years, Rubin has worked as an applied research intern at Microsoft Research and Development Center, practicing big-data methodology and developing machine-learning solutions for cyber defense.

## Education

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**Ben-Gurion University**  
*Computer-Science, Phd. Student,*  
Advisor : Prof. Danny Hendler.

**Be'er-Sheva**  
*2016–present*

**Ben-Gurion University**  
*Computer-Science, MSc, 95.85*  
Advisor : Prof. Danny Hendler.

**Be'er-Sheva**  
*2015–2016*

**Ben-Gurion University**  
*Computer-Science, BSc, 96.91*

**Be'er-Sheva**  
*2012–2015*

## Master thesis

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**Title:** *Community detection algorithms and their applications for malware detection*

**Supervisor:** Prof. Danny Hendler

**Description:** Revealing the community structure underlying complex networks is a key problem that is the focus of intense research. Community detection algorithms find many applications in the domain of cyber security. The focus of the research is to design community detection algorithms whose primary objective is to enable high-quality malware detection and to employ them for this purpose in various settings.

## Experience

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### Microsoft R&D

*Applied Research Intern.*

**Hertzlia**

*2016–present*

### Microsoft R&D

*Software Engineer Intern.*

**Hertzlia**

*2013–2016*

## Publications

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Yehonatan Cohen, Danny Hendler, and Amir Rubin. Node-centric detection of overlapping communities in social networks. In *2016 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining, ASONAM 2016, San Francisco, CA, USA, August 18-21, 2016*, pages 1384–1385, 2016.

Yehonatan Cohen, Danny Hendler, and Amir Rubin. Node-centric detection of overlapping communities in social networks. In *Advances in Network Science - 13th International Conference and School, NetSci-X 2017, Tel-Aviv, Israel, January 16-18, 2017*, Lecture Notes in Computer Science. Springer, 2017.

Amir Rubin and Gera Weiss. Mapping prefer-opposite to prefer-one de bruijn sequences. *Designs, Codes and Cryptography*, pages 1–9, 12 2016.

## Languages

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**Hebrew:** Mother tongue.

**English:** As mother tongue.

## Fun Facts

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### "Zachary's karate club CLUB"

*Member of the club, Netsci-X*

*2017*

### Debate

*Winner of the "Juniors IV 2016", Israel*

*2016*

## References

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### Academic

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- Prof. Danny Hendler
- Dr. Gera Weiss