

Avraham Raviv

Year of birth: 1993

Address: Revava, Israel

Phone: 972-54-2616416, Email: avrahamsapir1@gmail.com, [LinkedIn](#).

Short BIO

I am a sociable person, who loves to discover new things and delve into them, and really enjoys writing code. During my studies, I was exposed to a variety of areas - deep learning, reinforcement learning, big data analysis, signal processing, bioengineering and more. I most enjoy developing and coding algorithms for new problems. Recently, my main focus is biological networks for parallel computation (NBC), where I get involved in the development of tools for verification of all the challenges in the networks – from verifying the correctness of the network to analyzing the results using modern CV algorithms. I'm towards the end of my master's degree (direct track) and plan to continue studying for a Ph.D.

I'm also writing a book about Deep Learning in Hebrew - [Link](#).

EDUCATION

- 2016-2020 Bar-Ilan University**
B.Sc. Electrical Engineering, Bar-Ilan University (magna cum laude), specialization in **signal processing** and **bioengineering**.
2017 – Received a Dean award for the excellent achievements.
2017-2020 – participated in the "Ilanot" program for outstanding students.
- 2019-Now Bar-Ilan University**
M.Sc. Electrical Engineering, Bar-Ilan University (Direct route), with a focus on applications of **Deep Learning** on **computer vision** in **biological networks**.
Thesis topic: "Developing and using verification tools to construct robust machine learning solutions".
Current GPA: 97.

Selected courses (all of them with high grades):

Introduction to ML, Statistical ML, Deep learning, Big Data analysis, Digital Signal Processing 1-2, Statistical Signal Processing 1-2, Data science for physicists, Digital image processing.

EXPERIENCE

Teaching Assistant

Oct 2020 – Now Bar Ilan University

Introduction to Software Engineering and Computers.
Cyber Physical Systems (for graduate students).

Software Engineer (student position)

2018–2019 Intel Corporation

Developer at WIFI Windows group, Intel PTK.
Programmed in C/C++, and Python.

SKILLS

Programming languages: C/C++, Python, R – high level.

Also familiar with MATLAB and Julia.

Experienced with python packages for DS and DL – numpy, pandas, matplotlib, TensorFlow and PyTorch. I did several projects with python, and also in my master's degree I used it frequently. Also have a lot of experience with R language.

Familiar with computer vision (OpenCV).

Selected projects can be found in my [GitHub page](#) and [here](#).

Worked with: **Git, Linux, Bash.**

Capable self-learner, sociable and team-player.

PUBLICATIONS

Formal Semantics and Verification of Network-Based Biocomputation Circuits, Michelle Aluf-Medina, Till Korten, Avraham Raviv, Dan V. Nicolau Jr. and Hillel Kugler, **VMCAI'21**.

BNVerify: Verification of Network-Based Biocomputation Circuits, Avraham Raviv, Michelle Aluf-Medina, Till Korten and Hillel Kugler, **Under review**.

LANGUAGES

Hebrew Mother tongue

English High level

MILITARY SERVICE

2012-2015 **IDF**

Soldier in Givati brigade.