

Shai Cahana

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Programming languages: Python, Matlab

Relevant technologies: Git, Linux, SciPy, MATLAB, SQL, 3d Modeling and Printing.

Education

2020 – 2024 MSc *Applied Physics*. 93 GPA, awarded dean's list

The Hebrew University, Jerusalem

Researched morphogenesis of leaf tissue as active matter using stereoscopy and data analysis to explore the stress-relaxation in growing tissue.

- Evaluated leaf tissue growth using eigen values and linear algebra.
- Applied data pre-processing to align with various data visualization and analysis tools (histograms, correlation assessments, distributions, PCA).
- Used computer vision feature detection and feature matching for validations during the research process.

Worked on the integration of spintronics and colloidal quantum dots into a single device.

- Utilized 3D printing for a unique optical setup, used Shapr3d for modeling.
- Collaborated closely with chemists to refine deposition techniques.

2015 – 2019 BSc *Electrical and computer engineering*. 84 GPA

The Hebrew University, Jerusalem

Majoring in optoelectronics. Final project involved constructing an electrical measuring system for spin polarization efficiency of materials.

Relevant courses: **Algorithms**, Probability and Application, **Linear Algebra**, Digital Signal Processing, Data Structures, **Computer Vision**.

Professional Experience

2020 , 2021	Analog electronics lab TA The Hebrew University	Jerusalem
	<ul style="list-style-type: none">• Facilitated a course for a group of 20 engineering students.• Provided guidance in lab experiments and tools.• Responsible for grading lab reports.	
2017- 2018	Security engineer Wireless Connectivity Solutions, Intel	Jerusalem
	<ul style="list-style-type: none">• Automated vulnerability tests for Devices Under Test (DUTs) with varying specifications• Contributed to security validation and penetration testing using Python in the Kali Linux environment.	
2013 - 2015	Osint Researcher Special Operations, intelligence force	Center district, Israel
	<ul style="list-style-type: none">• Constructed comprehensive research for implementation purposes• Guided 5 people teams on research conclusions.	

Additional Information

- Languages: English , Hebrew - native.