

Roi Ronen

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github.com/ronenroi

Socials
[Roi Ronen \(LinkedIn\)](#)

Education

Ph.D., Electrical & Computer Engineering, Technion, 2021 - current
Advisor: Yoav Y. Schechner

M.Sc, Electrical & Computer Engineering, Technion, GPA 93.0, 2019 - 2021
Advisor: Yoav Y. Schechner
Research topics: Tomography, Computer Vision and Deep Learning.

B.Sc, Electrical & Computer Engineering, Technion, *summa cum laude*, GPA 93.2, 2015 - 2019
Specializations: Deep and Machine Learning, Signal and Image processing, Electro-Optics.

Awards

- **Jewish National Fund Climate Scholarships 2022/2023**
- **2021 JOSA A Emerging Researcher Best Paper Award**
- **Kasher Award, 2nd place:** undergraduate project contest in the Faculty of Electrical Engineering, Technion, 2020.
- Technion, Electrical Engineering, President's list, winter '17, spring '18, spring '19.
- Technion, Electrical Engineering, Dean's list, winter '15, spring '16, winter '16, spring '17, winter '18.
- Apple Excellence Award, January '19.

Employment

Amazon AI Labs - Rekognition group / Applied scientist intern, 2021

- Internship in the field of deep learning.
- Conducted research in **scene text detection and recognition**.
- Paper publishing.

Electrical Engineering, Technion / Teaching assistant, 2020

- Taught Signals and Systems (044131).
- **Outstanding Teaching Assistant Award.**

P&P tech / Biomedical R&D, 2016 - 2019

- Designed, executed, and analyzed biomedical experiments.
- Performed physics-based simulations.
- Developed algorithms for signal and Image processing.

IDF / The Paratroopers, 2012 - 2015

- Medic course.

Publications

Peer-Reviewed Published Papers

- Nadav Torem*, **Roi Ronen***, Yoav Y. Schechner, and Michael Elad, Towards A Most Probable Recovery in Optical Imaging, Under review
- **Roi Ronen**, Shahar Tsiper, Oron Anshel, Inbal Lavi, Amir Markovitz, and R. Manmatha, GLASS: Global to Local Attention for Scene-Text Spotting, European Conference on Computer Vision, 2022 (Oral)
- **Roi Ronen**, Vadim Holodovsky, Yoav Y. Schechner, [Variable Imaging Projection Cloud Scattering Tomography](#), IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022 (Oral)

- **Roi Ronen**, Yoav Y. Schechner, Eshkol Eytan, [4D Cloud Scattering Tomography](#), IEEE International Conference on Computational Vision, 2021 (Poster)
- **Roi Ronen**, Yacov Attias, Yoav Y. Schechner, Jules S. Jaffe, Eric Orenstein, [Plankton Reconstruction through Robust Statistical Optical Tomography](#), Journal of the Optical Society of America A, 2021. **Editor's Pick Award** and **2021 Emerging Researcher Best Paper Award**

Talks at International Conferences

- **Roi Ronen**, Vadim Holodovsky, Yoav Y. Schechner, [Variable Imaging Projection Cloud Scattering Tomography](#), IEEE International Conference on Computational Photography, 2022
- **Roi Ronen**, Yoav Y. Schechner, Eshkol Eytan, *Spatiotemporal Optical Tomography of Cloud Microphysics by Overflying or Orbiting Cameras*, International Radiation Symposium, 2022
- **Roi Ronen**, Yoav Y. Schechner, Eshkol Eytan, [Spatiotemporal tomography based on scattered multiangular signals and its application for resolving evolving clouds using moving platforms](#), IEEE International Conference on Computational Photography, 2021
- **Roi Ronen**, Yacov Attias, Yoav Y. Schechner, Jules S. Jaffe, Eric Orenstein, [Plankton Reconstruction through Population-based Statistical Optical Tomography](#), IEEE International Conference on Computational Photography, 2021
- **Roi Ronen**, Yoav Y. Schechner, Eshkol Eytan, [Spatiotemporal tomography based on scattered multiangular signals and its use for resolving evolving clouds using moving platforms](#), European Geosciences Union General Assembly, 2021

Skills

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- Image and signal processing, 3D geometry, Tomography, Cameras, and sensors.
 - Proficiency with machine and deep learning libraries including Pytorch, OpenCV, Tensorflow, Keras, Scikit-learn, Pandas.
 - High Proficiency in Python, Matlab, and C/C++.
 - Mathematical foundations behind Machine and Deep Learning algorithms.
 - Background in statistics, probability theory, linear algebra, and optimization.
 - Hebrew - mother tongue, English - written and spoken.
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