Nir Goldfriend
Tech-lead ; Physicist ; Problem-solver

✉ nircko@yahoo.com ☎ (+972) 52 - 6271527
in Nir Goldfriend 📍 Tel-Aviv ISR

A physicist in background and engineer in practice. More than 5 years experience in various research, system architecture and other engineering problems. Leading projects in optics, photonics, acoustics, signal and image processing, model-based reconstruction algorithms and machine-learning.

Work Experience

2021 – · · · · ‣ **Electro-optics system engineer** Apple.
Physicist in camera and depth sensing architecture team.
Developing and optimizing electro-optic systems for camera and depth-sensing application. Collaborating with cross-functional teams, conducting in-depth analysis and hands-on testing, applying physics and engineering principles to develop high-performance optical components, interfacing with vendors for hardware integration, and leading problem-solving efforts to ensure system performance and user experience.

2019 – 2020 ‣ **Academic Tutor** The Hebrew University of Jerusalem.
Physics Lab Instructor for Applied Physics and Electrical Engineering Department.

2014 – 2015 ‣ **High school teacher and mentor** Ramla-Lod High school.
I was a math teacher for at-risk students, implementing customized lesson plans tailored to meet the unique learning needs and challenges faced by their underserved backgrounds.

Education

2018 – 2021 ‣ **MSc. Cum Lauda Applied Physics , The Hebrew University of Jerusalem , Israel** .
I was a member at the Advanced Imaging Lab. I established a complex imaging modality combining optics, acoustics and computational image reconstruction, involving a bunch of elegant physics and computational skills. I also worked on remote sensing technique based on statistical optics and signal processing.

2015 – 2018 ‣ **BSc. Physics and Chemistry, The Hebrew University of Jerusalem , Israel** .
Program for outstanding students. During my bachelor I participated in "Etgar" honors program, worked on superconducting coplanar waveguide resonator used for quantum computing and developed a simulation of brain and neural activity of Mollusca (marine species)

Skills

Languages ‣ Strong reading, writing and speaking competencies for English. Basic Mandarin-Chineese with several technical courses.

Coding and software development ‣ MATLAB, Python and basic bash; DevOps (CI/CD and infra); hands-on data science paradigms and tools…

Hardware development ‣ Symbolic and numerical simulations in optics and acoustics; Building system prototypes in various imaging and remote sensing setups.

Algorithms development ‣ Image processing and physical-based algorithm development for large-scale products.

Misc. ‣ Academic and industrial research, teaching, training, consultation, managing.

Publications, Patents, Press

- **N. Goldfriend**, *Msc thesis: Compressive photo-acoustic 3d true optical resolution imaging*, 2021.

- N. G. (Apple), "US Patent P64110US1 (*In review)," 2024.

Honors

2019	‣	**Dean's list**, Hebrew University of Jerusalem
2018	‣	**HUJI NanoCenter Award for Excellence**
2015	‣	**Scholarship for outstanding students**, Hebrew University of Jerusalem.

Time-off

Volunteering	‣	**Sunrise Association** for young cancer patients
Good to talk	‣	Mongolia, Isla-de-Pascua, Mountaineering and Trekking Swimming and Cycling, Music play and theory, History and more