DAVID GOLDOVSKY

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CAREER OBJECTIVE

A physicist, specializing in technology and innovation. Practicing optical microscopy, laser physics, and other optic related topics. Creative, autodidact.

EXPERIENCE

SENIOR R&D PHYSICIST

Prisma Photonics, *Tel Aviv Nov 2021 - Present*

- Search for next generation solutions to company's products.
- Modeling and understanding underlying physics.
- Define specification for hardware and system calibration.
- Characterize system performance.
- Offer solutions to customer needs based on understanding of underlying physics.

PHYSICIST – ADVANCED DEVELOPMENT GROUP

Applied Materials, *Rehovot Jan 2020 - Nov 2021*

Physicist at the advanced development group, who seeks to define next generation technologies:

- Seek for next generation products, new and original solution to market needs, high risk high gain projects etc.
- Defining feasibility and concept of implementation of new technologies into the company's products.
- Designing experiments and optical setup for various projects at various fields.

PHYSICIST - TECHNOLOGIST

Applied Materials, *Rehovot Nov 2017* - Dec *2020*

Physicist at the optical technology team:

- Defining feasibility and concept of implementation of new technologies into the company's optical products.
- Simulating, modeling and analyzing complex light-matter interactions.
- Designing experiments and writing new utilities and tools to be integrated in the company's optical products.
- Understanding underlying physics in order to support products at optically hard cases (detection limitation of optical products).

PHYSICIST

Bar Ilan University, *Ramat Gan Jan 2014 - Nov 2017*

An optics lab under the guidance of Prof. Avi Pe'er. The work includes

EDUCATION

BAR ILAN UNIVERSITY

GPA: 91
Ramat Gan
Bachelor of Science (B.S.) Physics (Jan 2015)

Awards & Honors

- Cum laude

BAR ILAN UNIVERSITY

GPA: 94
Ramat Gan
Master of Science (M.S.) Physics and Nano-Technologies (2017)
Laser optics and frequency combs, building a High Power, ultrafast diode mode-locked laser for cold ablation.

Awards & Honors

- Cum laude

ADDITIONAL SKILLS

Autodidact

Programing languages: Python, MATLAB, C

Familiarity with DSP, image processing

Familiarity with: C++, C#, Haxe, SPICE, R

Electromagnetic simulations (FDTD, RCWA)

3D and 2D graphics and modeling

Audio processing

multiple ultra-fast optics related projects, such as:

- Spatial and temporal control of diode lasers to reach high power picosecond pulses of mode-locked laser of spatial high quality.
- Understanding and optimizing time dynamics of diode lasers for ultra short mode locked laser pulses at low repetition.
- Design diode laser chips for maximum performance
- Designing a high speed piezo actuated phase lock of optical cavities (of over 200KHz servo- bandwidth).

The job required R&D of optical modules, construction of optical setup and experiments and
design of mechanical custom-made parts.

LANGUAGES

Hebrew - native

English – very high level

Russian – basic level

Linux

PUBLICATIONS AND PATENTS

Goldovsky David, Valery Jouravsky, and Avi Pe'er. "Simple and robust phase-locking of optical cavitieswith 200 KHz servo-bandwidth usinga piezo-actuated mirror mounted in soft materials." Optics Express 24.25 (2016): 28239-28246.

US Patent Application for OPTIMIZING SIGNAL-TO-NOISE RATIO IN OPTICAL IMAGING OF DEFECTS ON UNPATTERNED WAFERS Patent Application (Application #20210349019)

US Patent for Optical inspection Patent (Patent # 11,105,740)