maria.kovalevsky@gmail.com

A Data Analyst with a MSc degree with over 6 years of experience in research and industry, specializing in the design, execution, and analysis of data-driven projects. My analytical skills are complemented by proficiency in **Python**, **SQL**, **MATLAB**, and **Power BI**, allowing me to transform complex datasets into actionable insights that support decision-making and optimize processes. Seeking a suitable position as a Data Analyst to use my analytical thinking and expertise in analytical tools.

PROFESSIONAL EXPERIENCE

2025-Present - Research Assistant, Weizmann Institute of Science

- <u>Signal and Image Processing:</u> Analyze imaging and spectroscopy data using advanced signal and image processing techniques, complemented by computational simulations to model and validate biomedical phenomena.
- <u>U-Net Deep Learning for MRI Enhancement:</u> Designed and implemented U-Net-based deep learning models for denoising low signal-to-noise ratio (SNR) MRI images, significantly improving image quality, structural preservation, and the reliability of subsequent quantitative analyses.
- Preclinical studies: Conduct invivo studies using MRI and NMR to investigate DMI imaging to detect cancer.

2017-2025 - Data Analyst | Biomedical Engineer, Insightec

- Quantitative Data Analysis: Conducted data mining and quantitative analysis on clinical and pre-clinical datasets to derive actionable insights, utilizing Python scripting and SQL to support decision-making in treatment strategies.
- <u>Tool Development for Quality Assurance:</u> Built and maintained databases in **Python** and **SQL**, optimizing data quality, organization, and retrieval. Automated data collection and cleaning processes, which reduced preparation time and enhanced data integrity.
- <u>Data Visualization & Reporting:</u> Developed visualizations and reports using **Python** libraries (Matplotlib, Seaborn, Plotly) and **PowerBI** to communicate trends, enabling data-driven decisions and enhancing transparency with stakeholders.
- <u>Algorithm Testing & Validation:</u> Performed validation testing to ensure accuracy and consistency in data analysis processes. Documented findings and quality checks, contributing to data-driven product improvement.
- <u>Cross-Team Collaboration:</u> Partnered with R&D and scientific teams to ensure alignment on data standards and quality requirements, translating complex data into clear insights for diverse stakeholders.

2016-2017 - Teaching assistant, Biomedical Engineering, *Technion*

• "Introduction to Control in Biomedical Systems" and "Muscle Physiology" courses, experiment design and preparation.

2013-2014 - Quality and Operation Engineer, Ascent Medical Israel

 Managed medical device import registrations and quality documentation, and trained sales representatives on new equipment.

EDUCATION

2014-2017 - M.Sc. in Biomedical Engineering, Technion-Institute of Technology

<u>Thesis:</u> A novel cardiac reserve index of monitoring cardiac function, based on the interplay between external work and pressure-time integral. (**Advisor**: Assoc. Prof. Amir Landesberg). (Final Grade: 91)

Designed and analyzed in-vivo experiments, applying signal processing and statistical principles to assess cardiac failure.

2012 - Clinical research associate (CRA) certificate, "Pharma Job" Bio-Medical college.

2008-2012 - B.Sc. in Biomedical Engineering (Biomechanics track), Ben-Gurion University.

TECHNICAL SKILLS

- Data Analysis Tools: SQL, Excel, Tableau, PowerBI
- Programming Languages: Python, MATLAB
- Databases: MySQL, PostgreSQL
- Data Processing and visualization: Pandas, NumPy, Matplotlib, Seaborn, Plotly, Tensorflow, Keras, Pytoch, Sklearn

MILITARY SERVICE & OTHER

2006-2008 - Military service: sport instructor, Israeli Air Force.