

# Itamar Efrati

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## Summary

**Data Scientist and Computer Science M.Sc.** graduate from Reichman University with a focus on **Machine Learning** and **Deep Learning**. Published researcher with work in **ICMLA** and **CHIL** conferences. Skilled at building **predictive models** for **images**, **video**, and **time-series data**. Experienced in turning messy **biological data** and **signals** into **real-time monitoring systems**.

- **Machine Learning:** Computer Vision, Deep Learning, Time Series, Signal Processing, Semi-Supervised Learning, Feature Engineering, Data Tabular.
- **Programming:** Python, PyTorch, PyTorch Lightning, scikit-learn, OpenCV, SciPy, Optuna, NumPy, Pandas.
- **Languages:** Hebrew (Native), English (Professional Proficiency).

## Experience

### [Teva Pharmaceuticals](#) | Data Scientist | 2021 - Present

- **Drug Development:** Applying machine learning to speed up research using large sets of unlabeled biological images.
- **Real Time Systems:** Developing a monitoring system that uses **video** to check patient severity levels.
- **ML Pipelines:** Building end to end pipelines for **feature extraction** and **model training** on GPU clusters.
- **Computer Vision:** Using **PyTorch** and **OpenCV** to create **POCs** that predict disease states from **images** and **video**.

### [Prime Minister's Office](#) | Software Developer | 2018 - 2021

- **Systems Development:** Built internal **Software Infrastructure** and **ETL pipelines** for a **40TB data cluster** using **Python**, **C#**, and **SQL**.
- **Infrastructure Monitoring:** Setup system tracking and automated alerts using **Grafana**, **Zabbix**, **Prometheus**, and **Elasticsearch**.

## Education

### M.Sc. Computer Science (GPA 93.9) | [Reichman University](#) | 2025

- **Research Leadership:** Led **ML** projects to predict chronic pain and suicide risk using **cellphone signals** and **time series data**.
- **Thesis Topic:** Developed a **Semi-Supervised** method for Time Series Classification using the Variational Information Bottleneck with **Gaussian Process priors** under [Dr. Shai Fine](#).

### B.Sc. Computer Science (GPA 92.5) | [Reichman University](#) | 2020

- **Core Studies:** Focused on Algorithms, Data Structures, and OOP.

## Key Insights & Publications

- **Time Series Classification:** Published lead author at **ICMLA 2024** regarding **Gaussian Processes** ([Link](#)).
- **Behavioral Prediction:** Co-authored paper for **HICSS 2024** on **predicting suicide risk** from digital behavior ([Link](#)).