TEHILA DAHAN

tehila1692@gmail.com
+972 54 260 6559
github.com/dahan198
www.linkedin.com/in/tehila-dahan-b86481178

SUMMARY

About to start PhD studies in Machine Learning & Optimization at Technion and **Algorithm Developer** in an AI & Algorithmics team at Elbit Systems. Has experience in Python programming, deep learning, data-driven projects, and algorithmic research.

SKILLS

Languages: python (PyTorch, NumPy, OpenCV, Pandas, HuggingFace, scikit-learn, cvxpy), SQL and R.

Technologies: TensorRT, Git, Linux, MLOps tools such as Weights & Biases and ClearML.

EDUCATION

Oct. 2024 - 2028 **Ph.D. student; Electrical & Computer Engineering Faculty** **Technion**

2022 - 2024 **M.Sc. of Information Management Engineering; Data and Decision Sciences** **Technion**

M.Sc. graduate in Machine Learning and Optimization under the supervision of Professor Kfir Yehuda Levy. My research is dedicated to enhancing fault tolerance in Machine Learning against data corruption, system failures, and adversarial threats. This research has been accepted at the **ICML 2024** conference. **Thesis grade: 95**. **GPA: 94.9**.

Tehila Dahan and Kfir Yehuda Levy. "Fault Tolerant ML: Efficient Meta-Aggregation and Synchronous Training." Forty-first International Conference on Machine Learning.

2017 - 2022 **B.Sc. of Information Systems Engineering; Data and Decision Sciences** **Technion**

B.Sc. graduate of Information Systems Engineering with a specialization in Computational Learning. **GPA 88.2, cum laude**. Earned a President's Honor for the spring semester 2020 and a Dean's Honor for the spring semester 2021. Achieved 1st place for an excellent final research project under the supervision of Professor Shoham Sabach.

EXPERIENCE

2021 – present **Algorithm Developer** **Elbit Systems**

- Conducting semantic segmentation project for IR and optical images in autonomous driving, which involves developing tagging guidelines, and training and assessing vision transformers like Segformer. This effort is further enhanced by employing DinoV2 and optimized by TensorRT for efficient deployment.
- Implementing object detection for IR and optical images using YOLOv8, integrated with Jetson NX and optimized by TensorRT.
- Enhancing multimodal matching (synthetic-aperture radar (SAR), IR, optical) using D2Net, LightGlue, and GAN-generated synthetic modalities for improved performance.
- Developing a multi-agent planning simulator for diverse tasks, incorporating modeling of real-world challenges, environment design, and defining states, actions, constraints, and objectives. Utilizing OOP, unit testing, UML diagrams, and Python packages like PyTorch, OpenCV, and NumPy for simulation and algorithm evaluation.

2019 – 2021 **Data Engineer** **KLA**

- Performing data analysis using Pandas and NumPy python packages and writing complex SQL queries to process data to have it in a useful format.
- Constructing a regression model to plan the company's safety stock for cost reduction.
- Constructing an optimal worker scheduling model using Integer Programming.
- Visualizing data using Power BI (DAX & M Script), R, and web development – backend framework: Django (python) and frontend technologies: HTML, CSS, and JavaScript.

ARMY SERVICE

2014 – 2016 **Spotter** **Combat Collection Forces, Regiment 636**

LANGUAGES

English - high level, **Hebrew** - native