Etai Wigman

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DSP Algorithm Engineer with a B.Sc. in Electrical & Computer Engineering from Ben-Gurion University. Strong foundation in digital signal processing, algorithm design, and mathematical modeling, with hands-on experience developing signal-processing pipelines in Python. Experienced in working with real-world, noisy data and translating theoretical DSP concepts into robust, testable implementations. Fast learner with strong problem-solving skills and a collaborative, engineering-oriented mindset.

Education

Ben-Gurion University of the Negev — *B.Sc. Electrical & Computer Engineering*, GPA: 81 | 2019–2024

- Specializations: Signal Processing, Algorithms, Machine Learning.
- Relevant Coursework: DSP, Signal Processing, Stochastic Processes, Linear Systems, Fourier Analysis, Optimization, Estimation Theory, Algorithm Design, Multivariate Statistical Data Analysis, Machine Learning.

Projects

Parkinson's Disease Detection – Algorithmic Signal Analysis

- Designed a modular signal-processing pipeline for time-series biomedical data, combining preprocessing, feature extraction, and statistical learning.
- Applied DSP techniques to noisy real-world signals, emphasizing frequency-domain analysis and feature stability.
- Integrated estimation and classification stages with emphasis on numerical stability and reproducibility.

Snowboard Visual Simulator – Real-Time Signal Processing System

- Implemented real-time image-processing modules treating visual input as signals under latency and noise constraints.
- Designed and debugged a live processing pipeline, focusing on temporal stability, responsiveness, and robustness.
- Analyzed execution flow and adjusted processing stages to improve real-time performance and system reliability.

GenAI Safety Analyst – Algorithmic Decision Pipeline

- Designed a deterministic decision pipeline combining probabilistic model outputs with rule-based validation.
- Focused on predictable behavior and strict input validation in the presence of uncertain external components.
- Debugged complex runtime behaviors to improve robustness and system predictability.

Work Experience

KLA (formerly Orbotech) — *IT Support & Systems Upgrade* | 2018–2019

- Assisted in modernizing computing infrastructure, coordinating upgrades across departments.
- Diagnosed and resolved system compatibility issues, improving reliability and productivity.
- Collaborated with cross-functional teams, gaining experience in troubleshooting and optimization.

Military Service

IDF – Communication Corps — *Computer Network Administrator* | 2014–2017

- Managed and maintained over 500 computers and associated networks.
- Trained and guided team members, improving operational readiness.
- Awarded Base Commander's Excellence Award for outstanding service.

Technical Skills

Signal Processing & Algorithms: DSP, Spectral Analysis, Filtering & Adaptive Filtering, Feature Extraction, Time–Frequency Analysis, Parameter Estimation, Algorithm Design.
Programming & Tools: Python, MATLAB, NumPy, SciPy, OpenCV, Algorithm Prototyping & Simulation
Soft Skills: Analytical Thinking, Problem Decomposition, Fast Learner, Independent Research, Clear Communication

Languages

Hebrew – Native | English – Full Professional Proficiency