Maor Assayag

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Seeking a senior R&D role to drive innovation and create positive societal impact.

EDUCATION

University of Haifa   Israel
Master of Science in Marine Technologies   *2023-2025*
- Subjects in the field of DSP and ML/DL.
- Thesis research on 'alien' language (sperm whale communication) using predictive models (`LSTMs`, `GMM-HMM`, `Transformers`) to uncover statistical and temporal dependencies and feature alignment in coda sequences as part of the CETI initiative (publication forthcoming).

Ben-Gurion University   Israel
Bachelor of Science in Computer Engineering   *2015-2019*

EXPERIENCE

R&D Team Lead   May 2020 – June 2025
Israeli Navy R&D Center
- Recognized as the most decorated technological officer in Navy history for pioneering innovation and leadership excellence.
- Led the full lifecycle of mission-critical software communication systems, from R&D to deployment.
- Mentored and led cross-functional teams of 15–20 engineers, fostering a growth-mindset culture.
- Sustained 17-hour cycles of leadership and execution, serving as the primary architect and lead contributor to the codebase across all major projects.
- Designed and developed 40+ scalable microservices from scratch, using a diverse tech stack including `RESTful API`, `WebSocket`, `Kotlin`, `Java`, `Python`, `Golang`, `C#`, `C++`, `NodeJS`, `Angular`, `JavaScript`, `TypeScript`, `CSS-HTML`, `RabbitMQ`, `Socket.IO`, `Prometheus-Grafana` and `MongoDB`.
- Led research and algorithm development in DSP projects, including underwater acoustic signature classification using cyclostationary features and RF communication system detection and decoding through spectrum analysis and advanced entropy theory in challenging environments (low SNR, Doppler effect).
- Designed and implemented custom communication protocols (encoding, compression, parsing, fragmentation, and encryption) over various RF bands/Satellite.
- Engineered a robust orchestration solution for real-time combat environments, enabling features like auto/data recovery and seamless deployment across diverse hardware. Key technologies included `Nomad` for automation, `Consul`/`Fabio` for service management, and `Vault` for secure secret handling.
- Managed a full CI/CD process using `Git`, `Jfrog Artifactory`, `Azure DevOps`, and `Docker`.
- Driving team members to push boundaries and expand their knowledge, passionate about fostering open communication and excellence. **Making the impossible feasible** was our day to day, not just a slogan.
- Recruited 300+ young talents for unit enrollment, covering roles including engineers, data scientists, and QA.

UI/UX Director   Oct 2020 – June 2025
Israeli Navy R&D Center
- Led UI/UX design for combat systems, standardizing pixel-perfect design patterns and components across teams and systems to accelerate development velocity.

Full-Stack Engineer   Oct 2019 – May 2020
Israeli Navy R&D Center

OPEN-SOURCE PROJECTS

transmit-OFDM | *Python*   2024
- Orthogonal Frequency Division Multiplexing, ready to be transmitted with an acoustic modem.

morse-deep-learning | *Python*   2024
- Detection and decoding of Morse code signals using deep learning models (`LSTM-RNN` & `RCNN`).

ngx-beautify-cursor | *Angular*   2022
- Open-source Angular package to enhance and customize website cursors.

chartjs-plugin-cyclic-axis | *JavaScript, Chart.js*   2021
- Open-source Chart.js plugin for cyclic pan functionality in scatter charts.

Community

Consultant   Jan 2022 – June 2025

Israeli Navy R&D Center

- Led efforts to integrate diverse populations, including young talent on the spectrum (*"Specials in Uniform"*) and Orthodox programmers (*"Vertex"*), into the technological unit.

Math Teacher   Oct 2016 – Oct 2019

Nachshon Program

- Taught and developed personalized mathematics lessons to foster student achievement.

Personal Mentor   Sep 2015 – Sep 2016

Perach - Tutorial Project

- Mentored students to improve academic performance and build confidence.

HONORS & AWARDS

University of Haifa *Master's Outstanding Excellence Award*	2025
IDF Chief of the General Staff *Excellence Technological Award - first in the Israeli Navy history*	2023
Israeli Navy Commander in Chief *Award for Creativity, Innovation and Excellence*	2022
Israeli Navy R&D Brigade *Excellence Award*	2022
Israeli Navy Control Unit Commander *Special Contribution Commendation*	2022
Israeli Navy Computer and Software Development Center *Excellence Award*	2021
Ben-Gurion University *B.Sc Engineering Project Departmental Representative & Audience Favorite*	2019

Technical Skills

Languages: Hebrew (native), English (professional working proficiency)

Keywords: Distributed Networking, Cryptography, Encoding, Compression, UI/UX, Microservices, Orchestration, Digital Signal Processing, Digital Modulation, Deep Learning, Machine Learning