

Liel Oren

B.Sc. Electrical Engineer

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Summary

Multidisciplinary Electrical Engineer, fast learner, FPGA expert.

Passionate about designing, implementing and integrating innovative SW/HW solutions (from requirements to delivery) for wide range of medical and military grade products, implemented on various technologies including FPGA, GPU, DSP and Microcontrollers.

For me, the adventure of learning and implementing new technologies is what leads me in both work, volunteering and personal life, as a full-time Maker.

Work experience

Radar System Engineer

Nov 2019 - Present

Sigmabit \ Elisra

- Test and demonstration (Mockup) design for full system.
- Lab bring-up and integration of multidisciplinary system.
- Automated tests (script based) for full system.
- FPGA algorithm definition.
- Matlab algorithm development and analysis.
- Integration of custom and preliminary components.

FPGA System Architect

Dec 2017 - Dec 2019

Tadiran Systems \ Elisra

- Defining and implementing\Upgrading modules and systems (Altera\Intel, Lattice, Xilinx).
- Fast solutions for dynamic system requirements and multidisciplinary challenges.
- SW-HW system Integration (DSP, FPGA, RF).
- In-chip debugging and innovative self-test approaches for complex designs.
- Upgrading development workflow and procedures.
- DR\PR summary presentations.
- CV\MATLAB test panels design.
- Technical Documentation in English and Hebrew.
- Direct Work with RFDSP teams.
- Direct Work with Vendors.

R&D for product Administration

Jun 2017 - Dec 2017

Elisra

- SW-HW specifications coordination
- Defining methodologies and tools for lab demonstration and testing of large FPGA designs.
- Implementing embedded PCIe and LAN testing assembly for hardware labs.

Chip Designer

Jul 2014 - Jul 2017

Elisra

- Matlab and VHDL algorithm design, bit and pipe exact.
- Lab project integration.
- Simulations for new peripherals and IPs.
- Automated code simulations and reports.
- Automated script based system testing.
- DR\PR summary presentations.
- R&D (Devices, IDEs, Transceiver Calibration Techniques).
- Technical Documentation in English and Hebrew.

Digital Design Engineer

Sep 2010 - Jul 2014

IAF - Israeli Air Force (108)

- Chip Design (Altera, Xilinx).
- R&D.
- Board Design and Bring up.
- System Development and Integration.
- Technical Training Coordinator.
- Technical Documentation in English and Hebrew.

Education

M.Sc. Electrical Engineer in the field of Signal Processing 2020 - 2022

HIT - Holon Institute of Technology

Concurrently with a full-time Electrical Engineering position at Elisra.

Evening student. Leumi fund scholarship.

B.Sc. Electrical Engineer in the field of Embedded Systems 2014 - 2019

HIT - Holon Institute of Technology

Final project with dean's honor:

"Rapid Convergent Genetic Algorithm" - FPGA and RPi based embedded console for solving TSP, Novel algorithm design, System design, Mechanical design, Matlab statistics, Research paper published at SPIE 2019 11006-39.

Real-Time Embedded Design, Course (720 Hours) 2014 - 2014

Real-Time Group

Real-Time Microprocessors programming, Linux Administration, Embedded Linux based Systems.

Practical Engineer in the field of Electronic and Digital Systems. 2009 - 2011

Amal B \ Harav Tchumi - Petach Tiqva

Concurrently with a part-time Electrical Engineering position at Israeli Air Force (108).

Operational final project with honors:

"Black Box System Analyzer and Duplicator" - FPGA Based, Quartus Scripting, WW board design.

Extended Technical Matriculation 2006 - 2009

Amal B \ Harav Tchumi - Petach Tiqva

Final project with honors:

"Wireless Smart Home" - Electrical & PCB design, VB GUI.

Qualifications

- Self-taught
- Fast Learner
- DIY Enthusiast (Maker)
- Hands-on engineer
- Systemic Perspective
- Innovative
- Team Development & Training
- System Reliability Improvement
- Cost and Time-to-Market Reduction Strategies
- Customer Focused Leadership

Volunteer Experience & Professional Affiliations

- Electrical R&D Lead, Development of accessible embedded solutions for handicapped children, via MADE assistive technology lab, HIT, 2016-2018 Alternately.
- MADE Lab assistant, R&D and lecturing, HIT, 2018.
- Assistive Technologies R&D with Innsbruck University delegation, HIT, 2018
- Electrical Students Mentoring, guiding students for final projects using microprocessors (Arduino), Elbit, 2019

Certifications

- Advanced Design with VHDL - Logtel
- Dean's honor for B.Sc. Final Project - HIT
- Linux System Design - Real-Time Group
- Advanced Soldering Techniques - IDF
- Technical Team Leading - IDF
- PCB Design for FPGA - IDF
- Radar Signal Analysis - IDF