

Job Target

- **FEM Structural Staff Engineer Specializing in ANSYS and ABAQUS**
- **Aeronautical/Mechanical Engineering Position**

Experience 2000-2004 Technion – Israel Institute of Technology Haifa, Israel
Academic Teaching Assistant

- Supervising and instructing students in the "Plastic Forming Processes Laboratory". The course's syllabus included the subjects: fracture mechanics, fatigue and life duration and plastic forming processes.
- Teaching Assistant for the course "Introduction for Structural Engineering in Aeronautics".

1996-1998 Elementrix Technologies Haifa, Israel
Vice Manager of Software Development Department

- The company developed encryption software for the internet and intranet.
- Responsibilities: production's design, module integration, deployment and quality assurance procedure designer.

1995-1996 MicroMart Misgav, Israel
Entrepreneur and Founder

- A company which specializes in the development and manufacturing of automated vending machines.
- In charge of the machine's user interface software simulation, and mechanical-software interface consultancy.

1995-1996 M.N.R. Software Haifa, Israel
Associate and Partner

- The company developed software for the management of debt consolidation files in solicitor's offices.
- My involvement included many roles: business management, product design, software support, debugging and resulting in 400 steady customers.

1992-1995 Israeli Air Force Rehovot, Israel
Aircraft Structural Engineering Officer

- Lead and conducted the writing of Israeli F-16's application, for the implementation of the major Engineering Change Procedure (ECP) 1910, in cooperation with Lockheed-Martin's representatives (Previously General Dynamics).
- Issuing engineering orders including: analysis and simulation of cold working processes with the emphasis on fatigue life duration. Also designing and optimizing repairs for region critical parts in the aircraft's fuselage.

Education 2000-2006 Technion – Israel Institute of Technology Haifa, Israel
Ph.D. in Aeronautical and Space engineering

- Thesis: "**Plastic Forming Processes of Metallic Composite Materials**"

1995-1999 Technion – Israel Institute of Technology Haifa, Israel
M.Sc. in Aeronautical and Space engineering

- Thesis: "**Plastic Forming Processes through Rotating Conical Dies**".
- Graduated *summa cum laude*.

1988-1992 Technion – Israel Institute of Technology Haifa, Israel
B.Sc. in Aeronautical and Space engineering

- Graduated *summa cum laude*.

- Publications
- Durban, D., **Davidi, G.**, and Lior, D., 2001, "**Plastic Forming Processes through rotating Conical Dies**", Transactions of the ASME Journal of Applied Mechanics, 68, pp. 894-902.
 - Jiny, S., **Davidi, G.**, Makevet, E., and Schur, D., 1996, "**Residual Life Analysis and a Novel Repair Method for Cracks in F-16 Center Fuselage Bulkhead**", Proceedings of the 1994 USAF Structural Integrity Program Conference, pp. 589-608.

- Additional Expertise
- High level usage and 5 years experience of the FEM Softwares: **ANSYS and ABAQUS** for analyzing in the fields of: **non-linear plasticity, contact mechanics**, structures containing piezoelectric elements, thermal analysis and MEMS related analysis.
 - Master the main CAD software packages: Autocad, Mechanical Desktop, Unigraphics, Simatran, pro-Engineer and more, including the post/pre processor PATRAN.
 - Familiar with the working environment of ISO-9001 and Six-Sigma management methodology.
 - Large experience with C/C++ and Fortran programming languages and also with Microsoft's new .NET technologies.
 - In depth usage of mathematical software packages: Matlab, Maple and Mathematica.
 - Basic capabilities and practical experience in the designing of printed circuit boards (PCBs) and basic electronic circuit design including: programming microprocessors, DSPs and Programmable microcontrollers.
 - Capabilities of accompanying an entrepreneur business-technological initiative project from the "seed" stage, followed by the "prototype" stage to the "maturity" stage (I have also acquired experience in financing and funding the product during each stage).

References are available upon request.