OLEG GOLDSHMIDT

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ABOUT (see also https://www.goldshmidt.org)

A versatile and creative executive with wide experience in a variety of industries and a proven record of creating highly successful products from inception to long term maintenance. Highly practical, comfortable with creating, growing, and managing highly skilled, global multidisciplinary teams, and with handling demanding clients. Multilingual, with excellent oral and written communication skills. Extensive consulting, teaching, and training experience.

SKILLS AND EXPERTISE

Leadership: Building and managing global multidisciplinary teams as a senior executive (CTO, Director, etc.). Ability to translate business strategy and customer needs to product requirements, flexible and future-proof HW and SW designs, effective test plans. Serving as a knowledge focus and a direction setter for business, research, technology, support, operations.

Facing clients: Working with demanding clients in the world financial markets and many diverse industries. Extensive consulting experience, including technology audits and due diligence.

Data, Algorithms, AI: Extensive background in mathematics, data science, probability and statistics, AI/ML/LLMs, transformer models, forecasting, numerical analysis, algorithmic complexity, scheduling, graphs (including knowledge graphs), routing, QoS, simulations, etc.

Software Development: Expert in Linux/UNIX/macOS application, kernel/eBPF, system, network programming, API design. Fluent in C, C++, Python (including Pandas, NumPy, PyTorch, transformers, scikit-learn, sktime, Playwright, etc.), R, Lisp, Scheme, shells, AWK, Perl, Java, Swift, Objective-C/C++, Fortran, etc.

Systems and Hardware: Systems and HW architecture. OS design. Virtualization and hypervisors. Storage (FC, iSCSI, NAS). Parallelization, HPC, clusters and supercomputers.

Networks: InfiniBand and Ethernet switching and management hardware and software, protocols, policies, quality of service, topology, survivability, multipathing, management tools.

Cloud and virtualization: AWS, Azure, GCP, OpenStack, Docker, VmWare, KVM, Hyper-V.

Security: Security infrastructure and malware detection and analysis. EDR/NDR/XDR. Cloud workload protection. Deception technology. DDoS protection using AI/ML.

Finance and trading technologies: Financial, mathematical, and numerical models of options and other derivatives, spot/forward currency trading, liquidity aggregation, smart order routing, pricing engines, etc.

Languages: Native or bilingual in English, Hebrew, Russian. Fluent Italian.

More information is available from https://www.goldshmidt.org.

INDUSTRY EMPLOYMENT HISTORY

2025 – Present: Independent Consultant — Herzliya, Israel.

- Technology audits and due diligence.
- Diverse research and software development projects, including AI/LLM.

2020 – 2025: Principal Software Architect — Fortinet, Herzliya, Israel.

Fortinet (FTNT) provides comprehensive security solutions to enterprises, small and medium businesses, service providers, and government organizations around the world.

- Principal architect of next generation EDR/XDR product (deployed on millions of computers) and cloud (AWS, GCP, Azure, Kubernetes) workload protection product, affecting multiple R&D and QA teams.
- Product Management: analysis of competitive landscape, comparative analysis and prioritization of cloud workload protection features.
- Hands-on: responsible for SW and algorithm design, implementation, delivery, and maintenance; development at kernel (including eBPF), system (Linux and macOS), and application level.
- Working directly with major enterprise customers on features and escalations.
- Product consulting on Deception Technology.

2018 – 2020: CTO — TrapX Security, Tel Aviv, Israel.
2014 – 2018: Director, Product Architecture.

TrapX Security (acquired by Commvault, CVLT) is a pioneering vendor of Distributed Deception with hundreds of customers worldwide, including many household names.

- Senior company executive responsible for all the technology aspects of business strategy.
- Member of the executive team, involved in all the major decisions and planning of the company activities, reporting regularly to the Board of Directors.
- Principal architect of the DeceptionGrid^{TM} product covering IT/IoT/OT/ICS assets on premises, in industrial facilities, or in the cloud (AWS, Azure, GCP, OpenStack).
- Working closely with all functions within the company, building the R&D team from the beginning (1st employee) and leading dozens of R&D, QA, support, outsourced personnel.
- Working with customers, technology and business partners, HW and SW vendors.
- Internal and customer-facing documentation: PRDs, technical specifications, white papers, presentations, lectures, training, etc.
- Hands-on algorithm (including decision support) and SW design and development.
- Responsible for the company's intellectual property development and patent activity.

2009 – 2013: Director, Research — TraderTools Inc., Raanana, Israel.

TraderTools provides a comprehensive FX trading platform aggregating liquidity from most of the world's top-tier banks and ECNs, smart order routing, pricing, white-labeling, and global order management, managing billions of dollars of daily trading volumes per customer.

- Key member of the Product Strategy team.
- Developed and implemented an AI-augmented algorithmic suite for market data aggregation, optimal order execution, pricing engine, algorithmic trading, ROI analysis, etc.
- Responsible for critical technology choices for the company's products, including LightFX™ — the cloud (SaaS) liquidity aggregation solution, working with vendors.
- Working closely with dozens of customers (FX trading desks of the world's leading sell-side banks and brokerages), liquidity providers, and all functions within the company.

2007 – 2009: Director, System Architecture — Voltaire Ltd., Herzliya, Israel.

Voltaire Ltd. was a leading provider of InfiniBand and Ethernet interconnect solutions, software, and services (acquired by Mellanox Ltd., MLNX, now a part of Nvidia, NVDA). Clients included the world major banks, hedge funds, data centre operators, and supercomputing labs.

- Created and led a System Architecture group coordinating the efforts of Product Management, R&D, QA, Support, Operations through the product lifecycle.
- Principal architect of the company's high performance, low latency InfiniBand and Ethernet switches (HW and SW), device management and fabric management software.
- Major achievements included the world's first PetaFLOP supercomputer ("Roadrunner"), multiple high-frequency trading systems with sub-microsecond latencies, and Oracle's high performance Exadata database machine, among other products.
- Worked in close contact with vendors, design partners, and customers, including top tier exchanges and investment banks.

2002 – 2007: Research Staff Member — IBM Research, Haifa, Israel.

IBM Haifa Research Lab is the largest unit of the IBM Research Division outside of the US.

Led multiple PhD-level teams and projects (typical budget $1.5M+) that have been incorporated into products such as novel system architectures for servers and massively parallel supercomputers, operating systems, distributed and data center systems, virtualization. Examples include:

- The Blue Gene supercomputer became the fastest in the world. Its successors remain among the fastest parallel systems today, scalable to millions of cores.
- "IP Only Server" created a radically simplified, efficient server hardware architecture.
- "Commercial Scale-Out" dealt with dynamic server (physical and virtual), storage, system and application software provisioning and management on a massive scale.
- "Collaborative driving systems" was an early, ahead-of-its-time look at traffic systems involving "smart" and autonomous vehicles, using AI/ML technologies.

2001 – 2002: Head of R&D — DataZoo Ltd., Raanana, Israel.

DataZoo developed an efficient and flexible AI/ML multidimensional classification engine.

- Leading development of real time AI/ML algorithms (including agentic) and software.
- ML-based traffic classification provided the only effective protection against DDoS attacks.

2000 – 2001: Head of Algorithm Development — Comgates Ltd., Herzliya, Israel.

Comgates was a leading provider of Voice and Video over IP platforms (acquired by BATM).

- Managed multiple local and remote teams (>30 PhD-level researchers and SW developers).
- Led development of models, algorithms (including AI, e.g., decision-support systems), protocols for QoS-oriented real time applications, including FPGA and ASIC deployments.

1996 – 2000: Financial Analyst — Bloomberg L.P. (BFM), Tel Aviv, Israel.

Bloomberg L.P. provides data services, financial analytics, trading platforms, and news.

Responsible for the vanilla and exotic option pricing functionality on the Bloomberg system.

- Managed a team of PhD-level quantitative researchers and developers.
- Developed financial and mathematical models, algorithms, and software for analysis and pricing of complex derivative securities in equity, currency, and commodity markets.
- Published financial analysis papers in the Bloomberg magazine and other publications.
- Worked closely with Bloomberg customers across the world.

ACADEMIC EXPERIENCE AND EDUCATION

2019: *Adjunct Professor, IDC (now Reichman University), Herzliya, Israel.* Teaching Statistical Methods and Data Analysis.

2004 – 2007: *Adjunct Professor, University of Haifa, Haifa, Israel.* Teaching undergraduate and graduate level courses in Basic and Advanced Operating Systems.

1995: *Postdoctoral Researcher, Pennsylvania State University, State College, PA, and Institute for Theoretical Physics, University of California, Santa Barbara, CA.* Research in high energy astrophysics.

1994: *Visiting Researcher, Scuola Internazionale Superiore di Studi Avanzati (SISSA), Trieste, Italy.* Research in astrophysics and cosmology.

1991 – 1995: *PhD in Physics, Tel Aviv University, Tel Aviv, Israel.* Research in astrophysics and cosmology. Teaching courses in modern physics and physics laboratory.

1983 – 1990: *MSc (summa cum laude) in Radiophysics and Electronics, Gorky State University, USSR.* [1984–1986: military service; 1986–1989: mandatory ROTC, ELINT.] Research in plasma physics, geophysics, and astrophysics.

PUBLICATIONS AND PATENTS

Over 30 publications in computer science, finance, physics, and astrophysics. Several patents and patent applications. The full list is available upon request.