

Alex Oren , Senior Software Developer, Team Lead, Dev. Manager	Email: dev@alexoren.com Phone: 416-835-2129
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Summary of qualifications

- Broad cross-industry professional software development experience in desktop (PC), multiplatform, client/server, multithreaded, real-time and embedded environments using object-oriented tools and methodologies.
- Proven experience in leading teams to define, design and develop successful commercial software products. Experience in full development life cycle. Demonstrated ability in taking projects from inception to completion.
- Excellent analytical, technical, problem solving, troubleshooting, planning, resource management, communication, interpersonal and mentoring skills. Strong leadership abilities. Works effectively with all levels of business, management, customers and coworkers. Comfortable with waterfall, iterative and agile methodologies
- Passionate, motivated and self-directed. Result-oriented. Fast learner that adapts quickly to new challenges. Innovative and open minded. A strong team player that also works well independently.
- Most recent technologies: C++, STL, SQL, XML, Design Patterns, Windows, Linux, Batch/shell, Python, Kafka, git. Other technologies: Java, C, C#, TCP/IP, COM, Assembly Language, Perl.

Work Experience

TMX Group, Equity Trading Cluster

Senior Application Developer

01/2021 – Current

Improving and adding features to the trading engine that powers the Toronto Stock Exchange. As a part of an agile group, worked on the conditional orders capability, and designed and implemented its interaction with dark orders. Envisioned and developed tools for manual and automated testing of isolated components of a large legacy system.

Designing and developing a Trade Persistence facility for quick disaster recovery. Spearheading transition to modern development tools. Technologies used: *Modern C++, STL, SQL, XML, Linux, Kafka, Google Test, git, Jira.*

Stars Technologies Services (software development subsidiary of Pokerstars), Casino Group

Team Lead (from 11/2013) and Hands-on Development Manager (from 1/2017)

11/2013 – 2/2020

Managed integrations of 3rd-party slots and live dealer casino games from 20 top-tier vendors into the Pokerstars platform, totaling over a thousand titles, and propelling Pokerstars Casino into the #1 online casino by player volume, operating in over 20 jurisdictions with yearly revenue reaching \$800M in only 7 years from its inception.

Led and managed a team of 7 server- and client-side developers responsible for delivering seamless integrations, developing components and functionality to support jurisdictional requirements and player-facing features (such as jackpots, bonuses, automatic currency conversion and game events) across all games, and providing internal and external support to vendors and CSRs. Ensured meeting and exceeding of expectations and deadlines.

Designed and maintained the integration APIs. Ran internal and external presentations and technical workshops. Worked closely with PMs, QA, developers and vendors to find and resolve issues and gaps. Interviewed developers. Mentored new hires (developers, PMs, QA and Ops support). Planned and assigned work.

Actively participated in all phases of development of software components, internal productivity and support tools, including: design, programming, code reviews and documentation.

Technologies used: *C++, STL, SQL, TCP/IP, Windows, git, Jira.*

Planned, designed and implemented a game security tool, to send rule-based alerts on statistical and other events (such as game win rates straying out of acceptable range, big wins, winning or losing streaks, etc.) Worked closely with all levels of stakeholders to define requirements. Investigated incidents of 3rd-party game exploits and suggested mitigations to vendors. Developed standards for secure coding and participated in company security meetings.

Stars Technologies Services (a.k.a PYR Software), Core Server Group and Game Security Team

Senior Software Developer

9/2008 – 11/2013

Designed and developed a system to proactively fight collusion, multi-accounting, bots, account hijacking and money laundering in poker games, based on statistical analysis of player wins/losses, partners, cash flow, and playing styles and patterns. Components included a real-time analysis engine, DB storage for large data volumes, periodic data aggregation, import and export tools, management and scheduling of batch and long-running queries, and reporting.

Developed and maintained a system to detect and restrict players linked to other players who committed fraud based on configurable criteria and degrees of separation, with options for automatic, manual and mass banning/unbanning.

Developed multiple internal and player-facing components, including: A scriptable drop-in replacement “fake” RNG server to provide games with number sequences that result in specified outcomes (used internally by QA and externally by regulators to test compliance); Poker leagues (ranking tournament play); Knockout bounties for poker tournaments; Reward store; A task scheduler for spreading out volume operations that may overwhelm the system. Recipient of several recognition awards and bonuses. Technologies used: C++, STL, SQL, TCP/IP, Windows, git, Jira.

Fiver Media (software development subsidiary of **Bodog**)

Senior Software Developer 5/2007 – 8/2008

Designed, developed and optimized server-side multithreaded online gaming in Java (infrastructure and games: Hi-Lo, Lottery, Blackjack). Designed and tested math models and wrote testing, verification and simulation tools. Integrated new (Java-based) games with existing (C++-based) infrastructure. Used agile methods (test driven development, continuous integration, iterations and retrospectives).

Refactored, enhanced and maintained client and server multithreaded C++ code base purchased from a third party. Retrofitted the code to support high availability (multi-server). Designed multi-currency support. Implemented game variations. Fixed security holes and other bugs. Provided live technical support to customer service representatives.

Technologies used: C++, STL, TCP/IP, SQL, Java, JBoss, Spring, Hibernate, BlazeDS, Windows, Linux.

InSystems Technologies / Whitehill Technologies (bought by **Oracle**)

Senior Software Developer (from 7/2002) and **Team Lead** (from 8/2005)

7/2002 – 5/2007

Led a team of 7 programmers that developed a suite of large scale, enterprise products for creating, managing and distributing complex documents, used by more than 350 insurance customers in 24 countries. Actively engaged in hands-on development. Technologies used: C++, Windows, COM, MFC/ATL, ADO, Office Automation, C#, Web.

As a team lead: Analyzed, prioritized and scheduled development tasks for major and minor releases of several products. Participated in project architecture reviews. Estimated time, effort and risk for requirements, bug fixes and customer-requested changes and negotiated scope and timelines with Product Managers and Business Analysts. Worked closely with QA and Customer Support. Interviewed, trained, mentored and motivated other developers.

As a senior developer: Worked on a suite of large (~500K lines) multithreaded C++ applications (*IStream Document Manager*). Conducted design and code reviews. Identified, diagnosed and fixed performance and stability issues. Envisioned, designed and implemented a product (*IStream Writer*) that revitalized sales of the product suite. Worked closely with external vendors on developing charts and graphs support for the product. Designed and implemented a migration utility from a legacy product (*FastForms*). Recipient of several spot bonuses and “in recognition” awards.

ATI Technologies Inc. (bought by **AMD**)

Senior Software Developer

9/2001 – 7/2002

Developed and enhanced the *HydraVision* multi-monitor desktop management software for the world's leading supplier of graphics, video and multimedia solutions. Technologies used: C++, Windows.

Utilized low-level O/S techniques to transparently intercept and modify Windows operations in order to control applications, windows and dialogs on multiple monitors and apply various UI effects.

BackWeb Canada Inc.

Senior Software Developer

7/2000 – 5/2001

Designed and developed components for a database driven web application for information collection and distribution throughout the extended enterprise (*e-Accelerator*). Technologies used: C++, SQL, COM, Java, JSP, CORBA, XML.

Developed class libraries for transactional data synchronization and for fault-tolerant, multithreaded communication using CORBA interfaces and XML data. Debugged and enhanced C++/COM client extensions. Designed and implemented software tools for scripting and automated testing of the product for the QA team.

Log-On Software Ltd.

Senior Software Engineer, Team Lead, Consultant placed in client companies

2/1994 – 4/2000

Worked for a leading software and technology solutions provider on several internal and external projects, in development and leadership positions, using a broad array of technologies (*UML, Rational Rose, C, C++, STL, x86 assembly, COM, MFC/ATL, DirectPlay, TCP/IP, SMB, Windows, VRTX, Pharlap TNT, Smalltalk/V*).

Designed, implemented and integrated algorithms, protocols, components and software products. Increased developers' productivity by designing development standards and conducting intra-company training and mentoring in object-oriented design and development, C++ and programming for Windows. Did high quality consulting work for several major software firms under tight deadlines with total customer satisfaction, resulting in repeat business.

- (11/1999 – 4/2000) **Senior Software Engineer** for **E Bridge R&D Ltd.**, a major online bridge game portal.

Developed software components for a client/server on-line interactive card game application. Designed the object-oriented architecture for the client application. Designed and implemented a modular communication infrastructure. Mentored team members on C++ and object-oriented design and development.

- (4/1997 – 11/1999) **Product Co-Architect and Team Lead** for **ECI Telecom Ltd.**, a leading supplier of networking infrastructure for carrier and service provider networks worldwide.

Pioneered the Transport Division's transition from PL/M to C++ and object-oriented technologies, resulting in increased productivity, shorter development cycles and reduced maintenance for large telecommunication projects. Led a team of 4 developers that designed and developed control software for a Digital Cross-Connect system that sold in over 20 countries in tens of millions USD yearly. Created departmental standards for C++ programming in a real-time, embedded environment. Tutored and assisted client's programmers. Analyzed, designed, implemented, optimized, tested and integrated software using C++, assembly and real-time, object-oriented CASE tools and methodologies.

- (9/1996 – 2/1997) **Lead Developer** for **Ornetix Technologies Ltd.**

Led a team of 2 developers that designed, implemented and integrated support for Microsoft's file sharing protocol (SMB) for the award winning *CD Vision* line of embedded CD-ROM server products. Developed in C++ using TCP/IP in a multi-threaded, embedded environment (*Pharlap TNT*) using Windows-NT APIs.

- (9/1996 – 2/1997) **Senior Software Engineer** for **Sapiens Technologies**, a leading global provider of innovative business solutions.

Enhanced and maintained a multiplatform RAD tool for creating object oriented, client/server GUI applications. Did the technology transfer from an off-site company. Adapted the product to support Eastern European languages and locales, resulting in a large deal with the government of Poland.

- (3/1995 – 6/1995) **Software Engineer** for the computing division of **Tnuva**, Israel's largest food manufacturer.

Developed software tools to automatically convert between different bi-directional language encodings on multiple platforms for the computing division of Tnuva, the largest food and dairy company in Israel. Facilitated interoperation and data sharing between applications running on heterogeneous platforms, eliminating manual conversion.

- (2/1994 – 3/1995) **Software Engineer** for **Sterling Software**

Developed software components for the *SAMS* distributed storage management product line. Designed, implemented, tested and integrated distributed software components and agents.

Consilium (<https://tabursa.com>)

Product Architect and Developer (independent consultant, contract)

2/1997 – 4/1997

Envisioned, designed and developed a product that enabled a leading technical analysis application (*Metastock™*) to work with data from local data vendors, resulting in capture of over 90% of the local market.

Utilized low-level Windows programming techniques (hooks) to seamlessly integrate the product into the user interface of the main application without having access to the application's source code or modifying it.

Israel Defense Forces, Reserve Service

1997 – 2000

Developed and taught programming and technology courses in the Israel Defence Forces Computing Centre. Including: C++, object oriented design, design patterns, Windows, networking, security.

Israel Defense Forces, Logistics Corps

Software Engineer and Head of PC Team (Career Officer)

1989 – 1994

Established, trained and managed a support team for PCs and LANs. Established a professional and technical knowledge base on PCs and LANs in my unit. Provided consulting services to other units. Designed and developed software applications in distributed PC/Mainframe and LAN environments.

Education

B.Sc. in Computer Science (minors in Mathematics and Statistics)

1988

from the Hebrew University of Jerusalem.

References available upon request.