

TREVOR ALAN ROBINSON
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SUMMARY

Software architect with 20 years of commercial experience and a consistent track record of innovation, quality and mentoring. Responsible for projects in numerous areas (compilers, databases, web services, ASIC verification) and of vast complexity. Specialize in Java, C#/.Net, C++, XML, and LL/LR parsing technologies, but have in-depth experience with many others, such as Delphi, Perl, JavaScript, COM, and SQL.

PROFESSIONAL EXPERIENCE

CALXEDA, INC., Austin, TX **Mar 2011 – Present**
Lead Applications Architect

- Assist customers in designing and/or migrating Internet-scale software solutions to run on Calxeda's low-power, high-performance ARM-based servers.
- Further the ARM software ecosystem by porting and tuning open-source software and assisting closed-source/open-core ISVs in their ARM ports.

DRILLING INFO, Austin, TX (via acquisition of HPDI in Nov 2009) **Mar 2009 – Mar 2011**
Senior Software Architect

- Senior member of architecture team, responsible for integrating and refactoring legacy systems as well as providing architectural guidance and requirements for new projects.
- Designed and implemented a SQL-compatible database engine (C++) optimized for interactive ad hoc querying and aggregation of time series data (consisting of billions of samples).

GOOGLE, INC., Austin, TX (office closed) **Sep 2008 – Mar 2009**
Software Engineer

- Part of the Google Sites team, focusing on new structured data and page template features.
- Created Google Visualization API data source component for structured search data.

MICROSOFT CORPORATION, Redmond, WA **Dec 2005 – Sep 2008**
Senior Software Development Engineer, Live Platform Services

- Responsible for the design and implementation of the secure peer-to-peer communications stack in the Live Mesh rich client.
- Contributed to the design of the Live Mesh communications cloud services.
- Produced the Live Mesh team C# coding guidelines document and advocated C# best practices.
- Owned the development of the ASP.Net (C#) web service for Windows Live Drive, which provided remote PC file search, browse, and download over the Internet.
- Created or contributed to internal dev tools, such as a virtual address space visualization tool.

CESURA, INC., Austin, TX (now defunct) **Jul 2005 – Nov 2005**
Server Software Engineer

- Part of the Java server team, implementing usage pattern analysis, problem detection, and probable cause analysis for the Cesura application service level management appliance.

NEWISYS, INC. / SANMINA-SCI, Austin, TX**Jul 2001 – Jul 2005*****Lead Software Architect, Design Verification***

- Solely responsible for design simulation and verification infrastructure for 5+ million gate coherent HyperTransport (HT) router ASIC, used to build 32-way AMD Opteron systems.
- Architected and implemented a significant portion of the 250,000-line Vera code base, including bus functional model of K8 CPU, protocol stacks for HT and Infiniband-based serial links, and global protocol checker for extended HT protocol.
- Led team to migrate code base from Vera to Java, including the development and open-source release of Jove (The Open Verification Environment for the Java Platform) <<http://jove.sf.net>> and Juno (OpenVera to Jove Source Code Translator) <<http://juno-xlat.sf.net>>.
- Developed Java/Swing HT packet visualization tool, used daily by design and verification teams.
- Developed XML-driven regression testing tool used for pre-commit and nightly regression tests.
- Implemented regression job submission, tracking, and reporting front-end to Grid Engine simulation farm using Perl and MySQL.

PERVASIVE SOFTWARE, Austin, TX**Jan 2000 – Jun 2001*****Software Engineer***

- Developed extensive cross-platform, COM-based C++ class framework similar to Java API, which provided polymorphic, binary-reusable strings, streams, collections, etc.
- Developed complete C/C++ portability library for Win9X, WinNT, Linux, Solaris, and Netware, which included abstractions for threads, synchronization, files, IPC, COM, etc.
- Spearheaded a build system reengineering initiative by developing a cross-platform component make system, simplifying the build process and reducing development time.
- Jumpstarted Internet development support for Pervasive.SQL 2000i by designing and implementing a highly concurrent, pure Java JDBC 2.0 driver.
- Implemented a complete XPath query engine in Java as a basis for XML query research.
- Wrote extensive internal documentation for libraries, systems, and processes.
- Mentored co-workers on advanced object-oriented design in C++ and Java.

HYDROCARBON PRODUCTION DATA (HPDI), LLC, Austin, TX**Jun 1996 – Dec 1999*****Lead Software Developer, Database Administrator, Webmaster***

Designed and implemented software solutions for end-user applications and internal data processing systems, while also maintaining database servers and company web site.

- Designed and implemented extensive Delphi component framework used to build custom front-end applications for all HPDI database products, which consistently elicit customer praise as the most user-friendly and feature-rich software in the industry.
- Automated the tracking of maintenance and distribution of all company products by developing an internal client/server application in Delphi, greatly increasing production capacity and eliminating late shipments.
- Developed database-driven Web applications using Java (servlets and JDBC), PHP3, Linux, Apache, and MySQL.
- Co-designed extensive common data model encompassing all petroleum production, transportation, and marketing information gathered by HPDI.
- Configured Oracle database server on Windows NT and wrote extensive PL/SQL scripts for processing of raw data into common data model.
- Supervised and trained both full-time employees and part-time students in software development, maintenance, and distribution.

MICROSOFT CORPORATION, Redmond, WA **Jun – Aug 1999*****Software Developer – Summer Intern, Internet Explorer Team***

- Responsible for refactoring core Win2K shell COM components into static libraries to allow MSN Explorer to run on pre-Win2K operating systems.
- Coordinated with JavaScript/DHTML team to develop C++ COM components used by the MSN Explorer GUI.

ACCELERIX, INC., Austin, TX **Jan – May 1999*****Software Developer – Spring Intern***

- Designed and implemented DirectX 6 hardware test tool and GDI driver debugging tool for 2D/3D graphics accelerator chip using VC++ and MFC.

S3, INC., Austin, TX **Jun – Aug 1998*****Software Developer – Summer Intern***

- Co-developed DirectX 6 support for Savage3D Win9X driver.
- Modified driver code and project files to support building with Intel Vtune C/C++ compiler for performance comparisons.
- Worked with QA to identify and fix bugs found in DX5 & DX6 driver.
- Gained experience with Direct3D and DirectDraw SDK/DDK, 3D transformation & lighting, triangle rasterization, and hardware rasterizer optimization techniques.

UNIVERSITY OF TEXAS OF THE PERMIAN BASIN (CEED), Midland, TX **Jun 1994 – Jun 1996*****System Administrator, Software Developer***

- Developed and maintained on-line bulletin board system for several industry organizations.
- Updated and maintained a multi-gigabyte on-line database containing oil and gas production and well information.
- Developed several custom add-on modules for on-line system utilizing C and Btrieve.
- Wrote many DOS/Windows utility programs such as software installers, script compilers, and graphics viewers/converters.

ARCANE TECHNOLOGIES, Midland, TX **Jan 1991 – May 1994*****Co-founder, DOS shareware/freeware development***

- Developed shareware SoundBlaster programming library, including DMA-driven DAC/ADC, FM and software wave-table synthesis, text-to-speech, and MIDI.
- Developed complete modem communications package, consisting of 25,000 lines of Pascal.

EDUCATION**BSEE – Computer Engineering, University of Texas, Austin, TX**

Magna Cum Laude (3.9 GPA)

Senior Project: Network Intrusion Detection System (Perl on Linux)