TREVOR ALAN ROBINSON

trevor@scurrilous.com

SUMMARY

Results-oriented software and DevOps architect and engineer with over 20 years of professional experience and a consistent track record of innovation, quality, and mentoring. Responsible for many complex projects in numerous domains. Most recent work has been in software development with Typescript/Javascript and deployment automation.

PROFESSIONAL EXPERIENCE

FITT FINDER, Austin, TX

Co-founder and CTO

- Took over and stabilized existing platform in PHP, Angular, iOS Swift, and Android Java.
- Designed and built an API-based data aggregation platform with Node.js and Typescript.
- Designed and built the next-generation platform providing a GraphQL API and React UI.

GERSON LEHRMAN GROUP (GLG), Austin, TX

Senior Software Engineer

• Built and maintained an internal recruiting platform used daily by several hundred council member recruiters. (React front-end, Node.js back-end, SQL Server and Elasticsearch.)

AFFINIPAY, Austin, TX

Software Architect, Manager, Lead Developer

- Primary focus on DevOps, including automated provisioning with Terraform, deployment with Ansible, message bus with Kafka, and containerization with Docker and Kubernetes.
- Owned several development projects, including a prototype React UI, Node.js back-end REST microservices, and Node.js system-level testing infrastructure for Java services.

INDEED, Austin, TX

Senior Software Engineer, Kegmaster

- Designed, implemented, and deployed publish/subscribe messaging infrastructure providing high-throughput, exactly-once message delivery across numerous data centers worldwide.
- Designed and documented system based on publish/subscribe messaging for processing sponsored job clicks in real time to avoid displaying unbillable (e.g. out of budget) ads.

CALXEDA, Austin, TX (company closed)

Lead Applications Architect

- Member of solutions team designing scale-out software solutions to run on Calxeda's low-power ARM-based servers. Target applications included Memcached, Ceph, Hadoop, and Cassandra.
- Furthered the ARM software ecosystem by porting, benchmarking, and tuning open-source software and assisting closed-source/open-core ISVs in their ARM ports.
- Developed a distributed application benchmarking system in Java and Python for defining, scheduling, deploying, monitoring, and archiving application runs across a cluster.
- Responsible for design and implementation of a C/C++, cross-platform distributed systems framework aimed at improving the performance and scalability of distributed software.

budget) ads.

Jan 2014 – Sep 2015

Mar 2011 – Dec 2013

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Jun 2019 – Present

Sep 2018 – Present

Mar 2016 – Jul 2018

www.linkedin.com/in/scurrilous

DRILLING INFO, Austin, TX (via acquisition of HPDI in Nov 2009)

Senior Software Architect

- Senior member of the 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, Austin, TX (office closed)

Software Engineer

- Part of the Google Sites team, focusing on new structured data and page template features, which consisted of server-side Java and JavaScript and client-side JavaScript and HTML/CSS.
- Created Google Visualization API data source component for structured search data.

MICROSOFT CORPORATION, Redmond, WA

Senior Software Development Engineer, Live Platform Services

- Responsible for the design and implementation of the secure peer-to-peer communications stack (C#) 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, Austin, TX (now defunct)

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

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

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 a complete C/C++ portability library for Win9X, WinNT, Linux, Solaris, and Netware, which included abstractions for threads, synchronization, files, IPC, COM, etc.

Dec 2005 – Sep 2008

Sep 2008 – Mar 2009

Mar 2009 – Mar 2011

Jul 2005 – Nov 2005

Jul 2001 – Jul 2005

Jan 2000 – Jun 2001

- 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 the company website.

- Designed and implemented an extensive Delphi component framework used to build custom front-end applications for all HPDI database products (now called "DI Desktop"), 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 raw data into a common data model.
- Supervised and trained both full-time employees and part-time students in software development, maintenance, and distribution.

MICROSOFT CORPORATION, Redmond, WA

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, Austin, TX (acquired by MOSAID)

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, Austin, TX

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.

Jun – Aug 1999

Jun – Aug 1998

Jan – May 1999

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

- Developed and maintained an 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 an 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

Co-founder, DOS shareware/freeware development

- Developed a shareware SoundBlaster programming library, including DMA-driven DAC/ADC, FM and software wave-table synthesis, text-to-speech, and MIDI.
- Developed a complete modem communications package with novel features for gaming.

Selected Open Source Projects

Typescript Fluent Validation Library TS	https://github.com/trevorr/tsfv
dumpable: Make Object.toString useful TS	https://github.com/trevorr/dumpable
React Scroll Manager JS	https://github.com/trevorr/react-scroll-manager
React Bootstrap Autosuggest JS https://a	affinipay.github.io/react-bootstrap-autosuggest
virtsecgroup: Virtual AWS security groups for Terraform J	<u>s https://github.com/affinipay/virtsecgroup</u>
Vss2Git: Migrate Visual SourceSafe repositories to Git C#	https://github.com/trevorr/vss2git
Circe: A High-Performance Hash Algorithm Library Java C+	+ <u>https://github.com/trevorr/circe</u>
Jove: Open Verification Platform for the Java TM Platform Ja	wa C++ https://github.com/trevorr/jove
Juno: OpenVera [™] to Jove Source Code Translator Java	https://github.com/trevorr/juno
uritemplate: Java implementation of <u>RFC 6570</u> Java	https://github.com/trevorr/uritemplate
Circe : A High-Performance Hash Algorithm Library Java C+ Jove: Open Verification Platform for the Java TM Platform Ja Juno: OpenVera TM to Jove Source Code Translator Java	+ https://github.com/trevorr/circe iva C++ https://github.com/trevorr/jove https://github.com/trevorr/jouno

EDUCATION

BSEE – Computer Engineering, University of Texas, Austin, TX Magna Cum Laude (3.9 GPA) Senior Project: Network Intrusion Detection System (Perl on Linux)

Jan 1991 – May 1994