

David Sharnoff

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Summary

Highly productive software engineer with domain expertise in logs; billing and accounting; big data; web search; distributed and cluster computing; authentication; and fault tolerance.

Preferred OS: Linux.

Preferred language: Go (golang); previously: Python, Perl, Javascript (& node).

See also: <https://www.linkedin.com/in/sharnoff>; <https://github.com/muir>.

Experience

SingleStore: Principal Software Engineer

Aug 2021 - present

Tech lead for authentication with a small team. Built an authentication server that proxies OIDC through to OIDC and SAML (Go). Architect of new core eventing system (Go). Key collaborator in efforts to adjust the technical direction in the managed service team to improve reliability and reduce technical debt. Directly responsible for many important efforts executed by others. [See details: https://dave.sharnoff.org/resume/singlestore.pdf](https://dave.sharnoff.org/resume/singlestore.pdf)

Blue Owl: Sr Software Engineer

May 2016 - May 2021

Led the development of Blue Owl's initial auto-insurance backend, a collection of microservices that connect all of the rest of the components together. Negotiated and implemented the APIs. Starting with nothing, the system went live with real customers in 2017. Proposed and led building of a replacement policy administration system (policy, billing, reporting, ledger, etc); did a single-day cutover in 2020. (Go) [See details: https://dave.sharnoff.org/resume/blueowl.pdf](https://dave.sharnoff.org/resume/blueowl.pdf)

Jyve: Engineering Architect

Jan 2016 - May 2016

In the first three months: I replaced the entire backend-services platform with a new API server (node), converting data from a non-relational store to relational (PostgreSQL). My comprehensive test suite (Python) allowed a hard cutover. [See details: https://dave.sharnoff.org/resume/jyve.pdf](https://dave.sharnoff.org/resume/jyve.pdf)

Google: Software Engineer

Feb 2012 - Dec 2015

In Google Research:

I improved the collection of non-click signals for user attention by reducing user impacts from sending the signals gaining approval for a full-scale launch (Javascript w/Closure). Work required iterative experiment design to gauge impact.

I added back-end processing features to handle additional data collected (Go)

In Google Analytics:

I made front-end UI changes including new generic widgets (Javascript w/Closure). I also made back-end improvements: new features, big data reorganization, refactoring, and added a new product: customer-triggered batch processing for unsampled reports (C++, Java).

Google: Site Reliability Engineer

Jan 2011 - Feb 2012

I improved the availability of Google's CRM by creating a drop-in library to control server failover. (Java) [See details: https://dave.sharnoff.org/resume/google.pdf](https://dave.sharnoff.org/resume/google.pdf)

Yahoo!: Sr Software Engineer

Oct 2009 - Jan 2011

In the dev tools group, I improved on the software that every Yahoo! engineer and sysad uses to install and update software packages. (Perl) [See details: https://dave.sharnoff.org/resume/yahoo.pdf](https://dave.sharnoff.org/resume/yahoo.pdf)

Searchme: Sr Research Engineer

May 2008 - Jul 2009

Searchme was a search startup. I translated research ideas into production systems. Projects included a map/reduce cluster computing framework; search data pipeline components; and feature generation for machine learning systems. (Perl) [See details: https://dave.sharnoff.org/resume/searchme.pdf](https://dave.sharnoff.org/resume/searchme.pdf)

Berkeley Electronic Press: co-founder & CTO

Aug 1999 - May 2002

Bepress was an academic publishing startup. I designed and built a complete content management system. The system I built continues to this day as the ongoing business of bepress. [See details: https://dave.sharnoff.org/resume/bepress.pdf](https://dave.sharnoff.org/resume/bepress.pdf)

Inktomi: Software Engineer

Aug 1996 - Jul 1997

Inktomi was an early web search startup that eventually became the basis for Yahoo's search engine. I built log analysis infrastructure: in Perl for HotBot; in C++ as part of Traffic Server.

Idiom Communications: Owner

1992 - 2007

Idiom Communications was a full-service ISP offering shell accounts, web presence, T1s, T3s, wholesale and retail DSL. I built the billing and customer care systems, including custom email services with effective spam filtering; and managed the computers and networks. I acquired and successfully integrated several other ISPs. [See details: https://dave.sharnoff.org/resume/idiom.pdf](https://dave.sharnoff.org/resume/idiom.pdf)

Education

University of California, Berkeley: BA, Computer Science

In addition to my studies, I coordinated 30 developers working on the UCSD Empire game.

Patents

6314421: Method and apparatus for indexing documents for message filtering 2001

Fuzzy document matching through pseudo-random shingle sampling.

11461851: Systems and methods for determining validation times 2022

Efficient movement of a an artificial clock during time-travel for test scenarios

11501380: Systems and methods for parallely validating a plurality of policies 2022

Using efficient clock movement to test lots of policies