

David Alan Schoonover

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I Solve Problems

Hi. I'm a software engineer seeking an organization where I can add value directly through the flexible application of cleverness, dedication, and pragmatism. I wear many hats to solve problems, and if none fit, I've made new hats after consulting trusted hatmakers and hatwearers. In the past I've enjoyed working on problems of scalability in the face of big data challenges, agile iteration of user-facing software in response to feedback and measurement, and building internal tools to meet the observed needs of the team.

Accomplishments


AddThis Share-Count and Unicron Datastore

Architect, Project Lead, Engineer  2010, Clearspring / AddThis  <http://addthis.com/get>

I led the team that designed and built Unicron, the real-time analytics system which powers the share-count feature of the AddThis sharing menu. It tracks more than 100M unique URLs across 10M+ domains, servicing 60k+ requests per second.

- Stream processor with multiple layers of queuing for data routing, reliability, and zero-downtime upgrades.
- Public API endpoints (Tomcat service) serviced by cluster on Rackspace Cloud behind CDN with dynamic TTL.
- Designed and developed Cassandra ORM (Vinyl).
- Management tools (CLI package and dashboard) to administer (start, stop, monitor), and create (configure, register, populate) a full deployment.
- Zabbix monitoring via JMX of both availability and performance.

Widget Ad Network (WAN) and AdClient Frameworks



Architect, Lead Engineer  2008-2010, Clearspring / AddThis

I designed and implemented Clearspring's WAN and AdClient Frameworks, a pair of highly flexible substrate for display, video, and rich-media creatives utilized by hundreds of advertising campaigns across 100M+ views, measurably increasing engagement and ROI.

- Public API consumed by a half-dozen artists and engineers, requiring backwards compatibility and feature stability over the course of several years.
- Client frameworks in Flash, Flex, and JavaScript.
- Management console for campaign configuration.
- High flexibility via cascading configuration, allowing operators to tailor units to campaigns.
- Substrate collects analytics, providing insight into performance, interactivity, and audience composition. Metrics customizable on a per-unit and per-campaign basis without code changes.
- Technical architecture designed to meet unknown advertiser needs but minimize bandwidth costs.
- Headless & in-page test suite with Maven+Jenkins integration.

Experience

Architect, The Littlest Battletank

Independent venture  Nov 2010 – May 2011  <http://tank.less.ly>

An independently-developed tank adventure game.

- Multiple clients: JavaScript and HTML5 canvas implementation; iOS client using Box2D and Cocos2D.
- Development of JS libraries for 2D physics, canvas-backed scene graph, and tools for content creation and module dependency management.

Senior Engineer, Clearspring / AddThis

Nov 2007 – Nov 2010 📍 McLean, VA 📍 <http://clearspring.com> / <http://addthis.com>

See above for primary projects. Additional work:

- Maintenance and feature implementation for the popular AddThis sharing tools, with over 10M publishers and seeing 2B+ monthly uniques.
- AddThis Client API in Flash:
 - <http://www.addthis.com/help/flash-overview>
 - <http://www.addthis.com/help/flash-examples>
- Designed and implemented the AddThis Services API: <http://www.addthis.com/help/services-api>
- Internal tools (Metatools, RookCmp) and DSL for querying and analysing in-house server analytics.
- Maintenance of legacy in-house Java servers and distributed datastore (Pawns, Bishop)

Freelance Design & Development

June 2007 – Nov 2007, Washington, DC 📍 Nov 2010 – Present, San Francisco, CA

Brandon Bird, artist

2011-present 📍 <http://test.brandonbird.com/store/>
Internet-famous for the Law & Order coloring book.
Design, dev of store framework & search.

Gordon Sander, writer & photographer

2007-present 📍 <http://gordonsander.com>
Pulitzer prize nominee; celebrity in Sweden.
Design, dev, and maintenance of full site.

Political Intern, Rep Gwen Moore (D-WI)

Jan 2007 – June 2007 📍 Washington, DC 📍 <http://gwenmoore.house.gov>

Ms Gwen Moore is the Congressional Representative for the 4th district of Wisconsin, including the hard-working people of Milwaukee.

Philosophy, Cornell University

2002 – 2007 📍 Ithaca, NY

- President, Risley Residential College for the Creative and Performing Arts: largest residential college on campus; elected seven times, led weekly meetings, authored organization charter.
- Financial Manager, Risley Theatre: only student-run theatre on campus.
- Parliamentary Debate (APDA): 9th-ranked speaker overall nationally; two 1st-place finishes at tournaments with 200+ attendees; speeches in front of 500+ people.
- VP Finance, Cornell Debate Association.
- College Scholar program for interdisciplinary study.

Skills and Contributions

- **Open Source Projects:** <http://github.com/dsc>
 - **Mine:** connect-compiler, node-nanny, xs.js, gal.js, bunch, jsongrep
 - **Contributions:** node-seq, jQuery, Cassandra
- **Public Speaking:** organized “brownbag” talks at Clearspring; nationally ranked debater in college; student government and theatre experience.
- **Art:** <http://art.less.ly>
- **Photography:** <http://flickr.com/photos/fedallah>
- **Areas of Expertise:** Distributed Datastores, Horizontal Scaleability, Cloud-based Architectures, Stream Processing & Analytics, Rich JS Web Apps, Embedded Web Apps
- **Languages:** JavaScript / CoffeeScript / Coco, Python, HTML5/CSS, Java, Ruby, Obj-C
- **Notable Tech:** NoSQL (Cassandra, Redis, CouchDB, Neo4J, BDB), Hadoop, numeric analysis (NumPy, SciPy, Incanter), node.js, Tomcat, Twisted, Web Frameworks (Django, Pyramid/Pylons, Flask, web.py, Express), DSLs (Jison, LEPL, Antlr)