2313 New York Ave #2
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William Heger
Senior Developer

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Objective Generalist programmer with 10 years of Senior Development experience in a Fortune 500 Company leading teams of 5-8 developers, followed by 6 years of independent contracting, now seeking full or part time contract assignments. Based in New York City and currently available for interviews. Particular areas of expertise:

Web, Enterprise Level: Public and Intranet, Client-side, Server-side, Multi-Tier Architecture, ERP (SAP) Integration

Enterprise Content Management: esp. Database Publishing, Data Extraction/Transformation, Office Suite Integration

Mobile Dev (Android): esp. Client-Cloud & Peer-to-Peer Networking, Multiple Protocols, Multiple Concurrency Strategies

Technology Sweetspots

Java Development

Platforms: Server/Servlet, Android
Scaffolding: Spring, JUnit (jMock, Hamcrest), *Maven, *Ant, *Logback, *Trac, *SVN/SVNKit
Content & CMS: *Apache Cocoon, iText, Apache Lucene, Apache FOP, RenderX XEP
**with specific plugin development or framework internals experience*

Web Development

Servers: Tomcat, Jetty, Apache, Node.js, Lighttpd
Browser: HTML/JavaScript, JQuery/UI, Bootstrap, YUI

Datastores

SQL Databases: Oracle (w/ PL/SQL), MySQL, PostgreSQL
NoSQL: Redis, CouchDB

Wires and Protocols

Transports & "Qs": WebSockets (Autobahn, Socket.IO), AJAX, UDP BCast/MCast, ZMQ, RabbitMQ
Protocols: HTTP/REST, SOAP/WSDL, SAP JCo
Consumers: XPath/XSLT, SAX, DOM, StaX, XSL:FO, JSONPath, Jackson, GPath

Mobile Development

Android: Intents/Receivers, AIDL, Services, Multi-threaded & Multi-process, Kivy & Python-for-Android, Networking (ZMQ/UDP/WebSocket/REST/NTP)

Design Patterns and Methodologies

Concurrency: Actors, Event Loops/Reactors, Dataflow, Threads
Architectures: Event Source, CQRS, MVC/MVP
Object Oriented: Most GoF Patterns, IoC
Methodologies: XP, Scrum, TDD

Other Comfort Zones

Languages: Python, Groovy, Perl, C, VB
MS Development: MS-Access Client and Client/Server Apps, MS-Excel Plugin Development
Google: Google Data API, Chrome Plugin Development
Systems: *nix Provisioning and Scripting

Employment Summary

Hazer Systems (2012 Forward) Self-funded software start-up presently developing a unique mobile framework that enables both cloud-based and peer-to-peer transactions for business and retail applications. Further detail will likely require written agreement of non-disclosure.

Positive Expectation, LLC (2009-2012) Formed in Nevada, "PosEx" was created to manage the finances of a 5 member tournament poker team. I handled the tax accounting, expenses, logistics, wrote training and simulation software, and personally won over $250K across 2.5 years of live tournament poker.

William Heger Consulting (2006-2012) As a private software contractor, I was the sole developer on around eight contracts totaling $320K. See Domain Experience.

Vishay Intertechnology, Inc (1996-2006) Lead the development of every aspect of Vishay's web program: technology decisions, server architecture, public web and intranet application development, content sourcing and management, development methodology, source code and configuration management. See Domain Experience.

Harte-Hanks, DiMark, SmithKline Beecham (1992-1995) Various computer operations positions, (tape librarian, printer operator, console operator) in mainframe-oriented datacenters throughout high school and college.

References can be furnished for all work experience past 1995.
Specific domain experience and education covered on the following page.

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Education

Professional Development: (1996 Forward) Frequented the New York Design Patterns Discussion Group for a time and attended Edward Tufte's Course on Presenting Data and Information. I avidly read Reddit's proggit, Lambda the Ultimate, and subscribe to numerous framework newsgroups. Constant study has allowed me to write production code in more than 8 languages, crossing the desktop, the browser, the database, the server, and most recently the handheld.

Drexel University (1993-1996) Left school my senior year before completing my Bachelors in Mathematics to begin working at Vishay Intertechnology. Applicable coursework and experience: Linear Programming, Differential Equations, Discrete Mathematics, Graduate Level Probability and Statistics, Game Theory, Maple, Matlab, APL.

> **Scholarships and Distinctions:** National Merit Scholar, AJ Drexel Scholarship, Levittown Rotarian's Scholarship, Drexel Freshman Physics Award, Elected Student Dean of Arts and Sciences, Edited the Literary Magazine

Czech Republic Semester Abroad (Fall 1995) Studied Comparative Economics through a program sponsored by the University of Nebraska Omaha and Palacký University of Olomouc.

Domain Experience

Mobile (Android)

Currently developing an Android based-framework which enables peer-to-peer communication as well as peer-to-cloud synchronization. The system is self-configuring and built for industrial-grade fault tolerance while using COTS hardware. A prototype installation has already been running the day-to-day operations of a small business in upstate New York for over a year. More detail can be shared in person within the bounds of an agreement of non-disclosure.

Search...

“by Parametric Filtering”

In 1998, I developed a parametric search tool for Vishay that used hidden frames to silently make CGI requests in response to users' selections. The result was a kind of “live update” we now commonly associate with AJAX. The user could design the search by selecting from dozens of different of filters: lists, free numeric ranges, and keyword/part. As the user then made selections, incompatible parameters were instantly removed from the interface, all without an explicit “submit” or page re-render. Beyond being a more fluid experience, this interface made a "no results" response impossible.

“by Weighted Fuzzy Searching”

Passive Electronic Component Manufacturers employ "descriptive" part numbers ie. non-delimited alphanumeric strings that encode four or more parameters according to a particular part scheme. From a single scheme, it's possible that millions of individual parts might be described. Oftentimes, part numbers arrive missing a parameter, or with elements transposed, or using natural expressions like "10 ohms" or "5%" in place of proper codes. To discern the user's intent, we translated the skills of part decoding experts into machine rules. By scoring and ranking competing interpretations, we were able to provide a best-guess breakdown and translation comparable to human analysis.

“by Keyword ”

Several keyword indexing systems were used at Vishay including Ht://Dig and Apache Lucene. Also, an understanding of crawling indexers was applied to our SEO work. For example, Vishay is the first company listed on Google for the keywords “Capacitor” and “Resistor” as well as many other common electronic component terms.

Web Architecture

Vishay's public site was serving roughly 20K unique visitors daily and about 30M hits per month on the day I left to start independent consulting. Its product catalog spanned tens of thousands of HTML and PDF documents. The site provided sign-on specific content through sessions, such as sample ordering, quote requests, and technical support. Internationalization was triggered via content-negotiation or by request and served English, Japanese, and Simplified Chinese. 3rd-party inventory searches, Part/Keyword/Parametric search tools, pdf generators, client-side table sorting with server-side fallbacks, were some of the applications deployed. In addition to guiding or directly developing all of these features, I designed Vishay's 3-tier multi-machine architecture utilizing Apache Listeners, Tomcat Servlets, and Oracle Databases.

ECM and Product Data Management

Underneath www.vishay.com was an Enterprise Content Management System that fed parametric data into Vishay's Product Data Management System. Ten of thousands of technical documents were pulled from departments all over the world, parametric data was extracted from these datasheets and after homogenizing, stored in company's product database. At various times, the system pulled content from MS-Access, Excel, and Oracle, but principally parametric data was extracted and transformed directly from Adobe FrameMaker's XML model. The content was then syndicated to printed Shortform-Catalogs, PDFs, MS-Excel, HTML, XML, etc.