

**William D. Doughty**  
**7427 Dee Gabriel Collins Rd**  
**Austin, TX 78744**  
**(512) 585-3600**  
**bdoughty@yahoo.com**

## **SUMMARY**

I am a software architect, designer and developer. I have 14+ years experience in computer technology working for organizations ranging from a multinational corporation to small startups. In addition to working at all levels of software development, I have played essential roles in sales, customer support, management and staffing. My work ethic is simple: exceed expectations. I have been recognized for excellence in every organization I have worked with.

## **EXPERIENCE**

Easybooks – ROR Open Source Project (Austin, TX) Author 8/2008-Present

*Description:* Designed and coded personal finances tracker.

See: <http://www.opensourcerails.com/projects/29906-EasyBooks>

*Technologies and tools used:*

- Ruby on Rails 2.1.1
- PostgreSQL
- GIT / Github (source control)

Synchromesh Computing (Austin, TX) Contractor 6/2008-8/2008

*Job Description:* Design and coding of web-based, multimedia, e-commerce system using PHP, Apache and MySQL.

*Technologies and tools used:*

- PHP, HTML, CSS, jQuery
- Apache Web Server, MySQL Database
- NuSphere's PhpEd (PHP IDE and Debugger)
- SVN (source control)

*Responsibilities and accomplishments:*

- Customized open source PHPBMS product to meet client's customer's specifications.
- Designed and implemented e-commerce application to customer's specifications.
  - Application involved multiple user roles, user authentication, image manipulation, shopping cart, credit card processing, and transaction accounting.
  - Application was the end-user visible component of an integrated business system involving multiple other proprietary and 3<sup>rd</sup> party components.
- Worked directly with client's customer to define requirements and verify functionality.

- Worked with other developers to define inter-component communications, database schemas, and integration test plans.

Self Employed (Austin, TX) Professional Drummer / Recording Engineer 2003-Present

- Toured with [Chris Casello](#), [Jenifer Jackson](#), and [Dickie Lee Erwin](#)
- Featured on numerous recordings by artists including Dickie Lee Erwin, Gary Newcomb, The Breathers, The Lonesome Heroes, Trey Brown, and Jenifer Jackson.
- Own and operate and a small recording studio in southeast Austin.

Geobot, Inc. (Memphis, TN) Founder, Chief Architect, Engineering Manager 1/1999-6/2002

*Job Description:* Chief Architect, Lead Developer. Manager of development, test, and product support teams. Sales engineer.

*Technologies and tools used:*

- Java, JDBC, RMI, AWT, Swing, JBuilder
- Oracle 8i, MySQL, Solaris, Linux, VMWare
- XML, HTML, Apache, Tomcat
- Ant (build), CVS, Bugzilla, JUnit, UML and XP methodologies.

*Responsibilities and accomplishments:*

- Created the architecture for Geobot's core product, the Geoswitch, an Object-Oriented modular software switch designed to enable rapid development of robust, distributed applications involving multiple heterogeneous computer systems. The Geoswitch is a 100% Java software switch developed to telecommunications and financial systems reliability and performance standards.
  - Designed and coded proprietary messaging kernel in Java to meet performance and scalability requirements
  - Designed and coded proprietary thread scheduler, overriding the JVM's default scheduler.

Key Benefits:

- Improved responsiveness and message throughput.
- Provided independent control and throttling of CPU usage for individual messaging channels
- Designed and implemented a modular plug-in architecture to allow application modules or "agents" to be loaded, configured, and unloaded from the switch at runtime without service interruption.
  - Developed stock agents for routing, translation, logging, and SQL database access.
  - Developed base classes to allow easy extension and 3<sup>rd</sup> party development of agents.
- Designed and coded fault-tolerant, distributed clustering architecture to enable scaling of switch across multiple physical processors and networked nodes.

Key Benefits:

- Multi-node configuration capable of recovering from individual node failures.

- Switch processing capacity easily increased by adding additional processors or nodes to the network.
- Hired and managed an eleven person engineering group consisting of a software development team, a test team, a documentation specialist, and an IT support person.
- Worked with executive management and board of directors to develop and refine company and product direction.
- Supported sales operations through technical presentations and pre-sales trial support. Presented company technology to potential investors and customers.
- Successfully delivered release 1.0 of the Geoswitch product to first customer. The customer is currently utilizing the product to manage real-time financial transactions in over 15 banks across North America.
- Designed, implemented, and administered company network and IT infrastructure to enable startup company operations
- One of four original founders.

*Company merged with Metatomix, Inc. ([www.metatomix.com](http://www.metatomix.com)) 6/2002*

Celcore, Inc. (Memphis, TN) Senior Software Developer, Systems Architect 8/1996-12/1998

*Job Description:* Design and coding of Celcore's flagship product, GlobalSwitch II.

*Technologies and tools used:*

- C, C++, ObjecTime
- QNX Realtime OS, Linux, Solaris
- PVCS (source control), bash (build automation)

*Responsibilities and accomplishments:*

- Product Support prime for Celcore's flagship product, GlobalSwitch II. Responsible for resolving escalated critical customer support issues with the system.
- Responsible for designing, producing, and evolving the GlobalSwitch II software system.
- Designed and implemented critical system monitor process for Celcore's GlobalSwitch II using C and C++.
  - System monitor process was responsible for monitoring availability of critical application processes and coordinating fail-over to redundant standby system in the even of a software or hardware fault.
- Designed and implemented SS7 connectivity subsystem, a market critical feature for Release 2.0 of the GlobalSwitch II.
  - Integrated 3rd-party signaling hardware and abstracted hardware I/O messaging into a procedural C++ API for the application layer.
- Proposed and implemented an automated load build process, saving dozens of man hours per month. Recognized with *Outstanding Achievement* award.
- Selected by upper management to present GlobalSwitch II Release 3.0 to MTN, a leading cellular service provider in South Africa.
  - Traveled to Johannesburg to give technical presentations to MTN management.
  - Lead a team of MTN engineers in functional verification of the system.

*Celcore acquired by DSC, Inc. late 1997. DSC, Inc. acquired by Alcatel, Inc. late 1998.*

Nortel Wireless Technologies, Inc. (Richardson, TX)

Member of Scientific Staff - GSM development

6/1994-8/1996

*Job Description:* Design and coding of features for Nortel's GSM cellular switch.

*Responsibilities and accomplishments:*

- Designed and coded call-processing features on Nortel's GSM switch, a massive real-time data switch capable of processing hundreds of thousands of calls simultaneously.
- Assigned as Project Leader for Local Number Portability feature, Nortel GSM's most critical deliverable feature for release GSM08.
- Received Technical Award for creating a Document Search Engine allowing thousands of Nortel GSM's in-house documents to be searched for key words in seconds. The search engine quickly became recognized company-wide for its speed and completeness in searching and was ultimately marketed and sold to other Nortel departments by Nortel GSM, generating additional R&D revenue for the GSM division. The project was done outside of normal business hours and without any solicitation or involvement from management.
- Assigned to critical but failing Echo Canceler project midway through GSM release development cycle.
  - Resolved technical issues.
  - Redesigned problematic areas.
  - Finished coding and completed feature to meet deadlines.

## **EDUCATION**

### **The University of Texas at Austin**

- B.S. Computer Science awarded May 1994.
- Relevant Courses: **Software Engineering, Database Management, Networks, Assembly Programming, Operating Systems, Systems Architecture, Computer Languages, Automata Theory, Scientific Computing, Computer Graphics**

## **TECHNICAL SKILLS**

- Java, C, C++, x86 Assembly
- PHP, Ruby, Javascript
- HTML, XML, CSS
- XML schema and XML translation development
- MySQL, Oracle, PostgreSQL, JDBC
- CORBA, RMI, SOAP, WSDL
- Operating Systems: Linux, Solaris, QNX (Embedded x86), Windows
- UNIX System Administration (Linux 12+yrs, Solaris)
- CVS administration
- TCP/IP network design/configuration
- XP / Extreme Programming process for software development
- UML and Rational Unified Process for software development

## **HONORS**

- *Dean's List* - University of Texas at Austin.
- *Excellence Award* at Nortel for outstanding technical achievement.
- *Outstanding Achievement* award at Celcore for critical problem solving and internal process optimization.
- *Peer To Peer* Award at Geobot for leadership and commitment.
- U.S. Patent H1,964

## **REFERENCES**

Available on request.