

**Brian T. Rice**

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**Professional Objective**

As a software developer, designer, and programming language expert, I am looking for a position where I can participate in new and innovative projects in software product or web services design and development, whether in a startup company or spin-off environment.

Having studied many different systems, I am expert at identifying abstractions that go beyond conventional experience. I identify software design migration paths that lead to simpler and more sound architecture, leading to lower maintenance and higher ease of extension for the customer over the product's lifetime.

**Employment History****Owner**

*LOGOS Research and Development* (Seattle, WA)

*May 2002–Present*

Design, development, and testing of "Clean Slate" Smalltalk: a new programming language and software architecture intended to integrate and improve many disparate technologies into one coherent whole. This will constitute a new kind of software platform which should eventually be commercially viable.

**Lead Software Developer**

*Activated Content, Inc.* (Seattle, WA)

*March 2006–August 2006*

Digital forensic audio watermarking software research, planning and development for a startup-level effort to expand into non-forensic markets. Provided a sound technical product and services basis for deals with major music and media production companies to innovate in the digital music marketplace. Revamped an existing product line to support a wider market.

**Firmware Developer, as Independent Contractor**

*Coastal Environmental Systems* (Seattle, WA)

*June 2005–October 2005*

Embedded systems software development for weather and environmental autonomous sensing stations. This involved maintenance, documentation, upgrade of legacy code and extensions, configuration management, debugging, functional testing, documentation, and reliability testing of the product. Prepared high-level documentation on the overall parameters and design of the product, and developed a set of recommendations for moving the product forward.

**Data Warehousing Systems Engineer**

*Microsoft, Inc., MSN iDSS division (via Volt Information Services)* (Redmond, WA)

*February 2004–February 2005*

Deployed, troubleshoot, and operated data-warehouse ETL pipelines. Catalogued and replaced legacy infrastructure software. Administered SQL Server/OLAP installations and developed a database application for auditing and automation. Negotiated with multiple MSN organizations on interaction protocols and software deployment issues. Developed clustering and optimized pipeline configurations for robustness and performance.

**Projects:**

- MSN adCenter

**Software Design and Research Consultant**

*Ibis Information Securities* (Seattle, WA)

*December 2002–June 2003*

Consulted in the development of innovative wireless technologies and the software required to manage them. Also consulted in the field of online data-mining in the systems security field. I designed and developed an innovative product using dynamic language technologies.

**Lead Developer**

*ForeHorseNet, Inc.* (Seattle, WA)

*February 2001–December 2003*

Worked with the company founders to develop a coherent technical strategy for the product (online payment system), by evaluating customer requirements, marketing issues, and suitable technologies and budgeting requirements.

### **Nuclear Reactor Technician, Workflow Applications Programmer**

U.S. Navy (USS Carl Vinson Bremerton, WA)

March 1996–March 2002

Electrical and electronics troubleshooting and repair, supervision and training. Managed a working group for equipment maintenance for over 2 years.

Designed, developed, and deployed a database client-server workflow application for coordinating and scheduling activities and their dependencies for the nuclear and engineering divisions and shipyard activity. Outlined software requirements, met with stakeholders, and collected feedback from pre- and post-deployment usage.

#### *Projects:*

- Iraq "No-Fly Zone" Enforcement
- Initial Response in Afghanistan to 9/11
- Developed a shipboard-shipyard engineering/nuclear workflow management system
- Nuclear engineering vibration analysis and QA program

### **Engineering Mathematics Lab Administrator**

Texas A&M University Mathematics Department (College Station, TX)

October 1995–March 1996

Ran a computing lab of symbolic algebra system workstations for engineering students. Provided technical support, assistance, and tutoring in engineering/simulation problem-solving and brainstorming.

### **Independent Tutor in Mathematics and the Sciences**

(Various)

1992–1997

Provided tutoring services to fellow students at a competitive rate. Fostered consistent success through highly-approachable explanations of deep technical and conceptual foundations of the field. Marketed entirely through word-of-mouth recommendations.

### **Engineering CAD Draftsman (intern)**

O'Brien Manufacturing (Houston, TX)

1994–1995

CAD/3D rendering of existing technical drawings for mockups of customer equipment in existing and potential products.

## **Education**

### **US Navy Nuclear Reactor Engineer Certification in Electronics and Power Distribution, December 1997**

Naval Nuclear Power School

### **AS-equivalent coursework in Computer Science and Mathematics, March 1996.**

Completed two years of honors course work in engineering and mathematics, along with much independent study in computer science and mathematics, logic and philosophy.

Texas A&M University

### **High School Diploma with Honors, May 1995**

Humble High School, TX

Overall GPA: 4.7 out of 5.0

*I am primarily self-educated over the years, accumulating quite a library and using it regularly. I also correspond regularly with post-doctorate researchers on relevant topics.*

## **Security Clearances**

- *Classified*, US Navy / US Department of Energy, 1996. FBI background checks.

## **Systems Software Development**

Programming Language Design (10 years), Domain-Specific Language Design and Implementation (expert), Compiler Implementation (intermediate), Virtual Machine Implementation (4 years), Managed Run-time Implementation (4 years), Formal Methods to Analyze and Simulate Concurrent and Distributed Software Designs (intermediate).

## **Programming Languages**

C++/STL/Boost (expert), Java (J2SE) (intermediate), C#/.NET Framework (2 years), Perl, Python, PHP (4 years).

*Advanced:* Squeak Smalltalk (expert), Dolphin Smalltalk, Common Lisp (CMUCL/SBCL/OpenMCL), Scheme (Guile/Bigloo/DrScheme), Ruby (1 year).

## Databases

Schema Design and Implementation (expert), Schema Analysis and Optimization (intermediate), Query and Stored-Procedure Design and Optimization (expert), Security/Vulnerability Analysis (intermediate).

*Implementations:* MySQL (2 years), PostgreSQL (3 years), Microsoft SQL Server (3 years), SQL Server OLAP Cube Management (1 year).

## Web Development

PHP (intermediate), Semantic HTML/CSS/Javascript presentation/layout/behavior (3 years), AJAX programming, patterns (1 year).

*Advanced Frameworks:* Seaside (Squeak) (intermediate), Uncommon Web (Common Lisp) (intermediate), Ruby on Rails (1 year).

## Source Management

*Revision Control:* Subversion, CVS (expert), DARCS (expert), SourceSafe, SourceDepot, Perforce.

*Documentation:* Doxygen (3 years), Trac, MediaWiki (including administration), UML diagram authoring.

## Systems Administration

Linux/FreeBSD/Unix (intermediate), Win2k/XP/2003 (intermediate).

## Professional Memberships

### Organizer, Planner

Seattle Mind Camp  
2005–

### Member

Smalltalk Industry Council  
2002–

### Member

Association of Lisp Users  
2002–

### Lead Researcher, Designer, and Coordinator

The TUNES.org project  
October 1999–

Helped re-design the site and its documentation to reflect a broader range of technical research and to separate political from technical goals.

## References

*Joseph Brothers*

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*Aaron Hoffer*

Software Process Coordinator, Washington Mutual  
Bank

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*Robin Battey*

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*Elric Scott*

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SchemaLogic, Inc.

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