

# John R. Zedlewski

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## Education

**Princeton University**  
A.B. Computer Science  
Phi Beta Kappa  
National Merit Scholar

Class of 2002  
Magna Cum Laude  
3.85 GPA

## Employment

### Senior Member of Technical Staff

August 2002 - Present

*VMware, Inc., ESX Kernel Group*

- Led development of scheduling algorithms for Hyper-Threading-capable processors and Non-Uniform Memory Architectures (NUMA) in the VMware ESX Server kernel. Wrote whitepapers on both topics (available at [http://vmware.com/support/resources/esx\\_resources.html](http://vmware.com/support/resources/esx_resources.html)).
- Co-developing new product for cluster-wide resource management and load balancing. Responsibilities include algorithm design, C++ implementation, performance analysis, and team coordination.
- Three patents pending, with three more soon to be filed, covering inventions in security, memory management, multiprocessor scheduling, and time virtualization.

### Software Industry Analyst

2001-2002

*D.H. Brown Associates, Inc.*

- Researched and wrote the D.H. Brown *Linux Function Review* reports for 2001 and 2003, the industry's most detailed analyses of Linux operating system capabilities. Presented 2001 findings to technical and marketing teams at Microsoft, SGI, Sun, and Fujitsu.
- Prepared in-depth technical evaluations of UNIX systems software for clients including Compaq and IBM.

### Online Editor

1998-2002

*The Daily Princetonian, Inc.*

- Managed business and technology issues for DailyPrincetonian.com, supervising a staff of eight and leading the website to profitability for the first time.
- Developed database-backed content management system to automate site publication.

### Engineering and Product Management Intern

Summer 2000

*The Adrenaline Group, Inc.*

- Consulted with clients to develop the feature set for the first web-enabled release of ProChain project management software.
- Developed Java profiling tools to quantify the performance of web applications.

### Consultant and Analyst

1999-2000

*Management Insights, Inc.*

- Advised Inprise, Inc. Director Robert C. Coates on several deals concerning Linux and other emerging technologies, including the Interbase spin-off and the proposed merger with Corel.

## Online Columnist

1999-2000

*OSOpinion.com and others*

- Wrote a series of articles discussing strategy in open source markets, including “An Open Business Plan for RedHat” and “Free Software and the Innovator’s Dilemma,” which were also carried on Slashdot.org. Readership in the tens of thousands. Invited to discuss ideas with institutional investors in SCO, Inc.

## Research Projects

### Modeling Hard-Disk Power Consumption

2001-2002

*Princeton University Senior Thesis*

- Designed and implemented a simulator to measure power consumption of mobile hard disks, along with tools to automatically extract simulation parameters from real hardware. Demonstrated significantly better accuracy than standard models.
- Work presented at the Second Conference on File and Storage technologies (FAST 2003). Full citation: John Zedlewski, Sumeet Sobti, Nitin Garg, Fengzhou Zheng, Arvind Krishnamurthy, and Randolph Wang. Modeling Hard-Disk Power Consumption. *Proc. Second Conference on File and Storage Technologies*. March 2003.

### Optimizing the JythonC Compiler

Spring 2001

*Princeton University Junior Independent Work*

- Developed *typed-jythonc*, an enhanced compiler for the Jython language, which applies type inference techniques to detect Java class types used within Jython programs. By converting dynamic method calls to direct calls on objects with inferred types, *typed-jythonc* achieves substantial performance improvements.

### The Value of “Extras” on eBay

Spring 2001

*Princeton University ECO444 Auction Theory Project*

- Analyzed the effectiveness of seller-purchased extras, such as placement in the “featured listing” section, on eBay. Developed software to extract information from auction pages, analyzed data, and concluded that such extras have negligible effect on sale price in markets for commodity goods.

## Skills

- Programming Languages (expert): C, Python, C++, Java
- Programming Languages (proficient): R/S-PLUS, C#, Perl, x86 assembly, Maple,  $\LaTeX$
- Strong mathematical background, including knowledge of statistics, linear and nonlinear programming, discrete mathematics, theory of algorithms, and linear algebra
- Deep understanding of operating system design and performance analysis
- Competent (but rusty) knowledge of German, Spanish, and Latin
- Excellent public speaking abilities from four years of extemporaneous speaking competition