

# Daniel Stutzbach, Ph.D.

5902 Revere Pl, Dallas, TX 75206  
214-316-4386, Fax 866-244-4219  
daniel@stutzbachenterprises.com

Optimization expert: I make software faster

Available for short-term or part-time contract work  
Able to telecommute or temporarily relocate if needed

## Skills

- Extensive expertise in algorithm design, code optimization, and network protocols
- 14 years experience with C, 8 years with Python, 2 years with C#
- Daily use: C (GCC & MSVC), Python, C#, SQL, make, Git
- Regular use: JavaScript, LaTeX, Lex, Yacc, NSIS, HTML
- Extensive past use: C++, TCL, assembly, microcode, Expect, Darcs, CVS, Visual Source Safe

## Employment

*Stutzbach Enterprises, LLC (sole proprietor)*

### **Creator of Poker Sleuth (shareware)**

8/2006–

- Tracks statistics of online poker play, stored in SQLite database
- Bayesian opponent modeling
- Monte Carlo simulations using multiple sampling strategies
- GUI in C#, backend in Python, speed-critical parts in C

Present

### **Creator and maintainer of BList (Python extension module, BSD License)**

9/2006–

- Same signature as a Python list
- Better asymptotic performance for many operations
- Similar performance for small lists

Present

### **Contractor for Silver Screen Tele-Realities (a.k.a. SiSTeR Technologies)**

6/2009

- Increased the speed of their rendering engine by a factor of 5

### **Contractor for SafeNet**

11/2006–

- Designed system for efficient large-scale monitoring of searches on Gnutella

1/2007

*Southern Methodist University, Computer Science & Engineering*

### **Adjunct Faculty, CSE 3353 Fundamentals of Algorithms**

Spring 2007

*University of Oregon, Computer & Information Science*

### **Research and Teaching Assistant**

9/2001–

- Created and validated measurement tools for studying the Gnutella and Kad networks
- Conducted measurement studies and developed models of network characteristics and user behavior

12/2006

*ADC, Inc.*

### **Software Engineering Contractor**

2/2001–

- Enhanced firewall filter of CMTS in microcode and C

8/2001

*Assured Digital, Inc.*

### **Senior Software Engineer**

8/1999–

- Primarily responsible for embedded system software design, development, and debugging in a VPN router

1/2001

### **Software Test Engineer**

10/1998–

- Primary author of automated tests
- Optimized existing tests for a tenfold speed increase

8/1999

*Microwave Radio Communications*

### **Embedded Systems Programmer**

5/1997–

- Created a primitive multitasking embedded operating system with loadable drivers

8/1998

(Awards, Education, and Publications on reverse)

<b>Awards</b>	1 <sup>st</sup> place (5 times)	UO ACM Programming Competition	2002–2006
	Membership	Upsilon Pi Epsilon Honor Society	2006
	Scholarship	Clarence and Lucille Dunbar Scholarship	2006
	Hon. Mention	ACM ICPC World Finals Programming Competition	2003
	1 <sup>st</sup> place	ACM ICPC Pacific Northwest Programming Competition	2002
	1 <sup>st</sup> place	WPI ACM Programming Competition	1998
	1 <sup>st</sup> place	WPI Tau Beta Pi Design Competition	1997
	Scholarship	RI Distinguished Merit Competition in Computer Science	1995

<b>Education</b>	<i>University of Oregon, Computer &amp; Information Science</i>		2001–2006
	<b>Ph.D.: Measuring and Characterizing Properties of P2P Systems</b> <ul style="list-style-type: none"> <li>• Advisor: Prof. Reza Rejaie</li> <li>• GPA: 4.00 GRE scores: Quantitative: 800, Analytical: 800, Verbal: 560</li> </ul>		
	<i>Worcester Polytechnic Institute</i>		1995–1998
	<b>Bachelor of Science in Electrical Engineering, minor in Computer Science</b>		

**Publications**

3 Peer-reviewed journal articles  
7 Peer-reviewed conference papers  
5 Peer-reviewed workshop papers  
3 Peer-reviewed extended abstracts  
1 Book chapter  
2 Python PEPs (1 Accepted)

*Full list of publications available upon request*

*References available upon request*