

JORGE L. VITTES

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OBJECTIVE: Obtain summer employment in software development or research.

EDUCATION

PhD Student, Computer Science
Stanford University, Stanford, CA

B.S. Degree in Computer Science
Double Major in Discrete Mathematics and Logic
Carnegie Mellon University, Pittsburgh, PA

December, 2003
GPA 3.87/4.00

TECHNICAL AND OTHER SKILLS

- Programming Knowledge: C/ C++, SML, ASP, ColdFusion, Javascript, SQL, HTML, Java, OpenGL, Assembly, and Pascal
- Fluent in Spanish, and English.

WORK EXPERIENCE

RESEARCH

- **Research Associate, Aladdin Center - Carnegie Mellon University** Pittsburgh, PA (12/2003 – 08/2004)
 - Wrote libraries in ML to simulate moving points, and bouncing points, and kinetic (moving data) geometry tests.
 - Wrote versions of the various algorithms to calculate the convex hull of moving, or bouncing points using the libraries.
 - Researched the running times of these various algorithms.
 - Helped develop a dynamic tree data-structure with $O(\log n)$ time for updates, that can support local, and non-local queries.
 - Wrote a C program said data-structure, and wrote a test suite for testing it against other dynamic tree data-structures.
- **Undergraduate Researcher, Aladdin Center - Carnegie Mellon University** Pittsburgh, PA (05/2002 - 12/2003)
 - Did work related to current work above.

TEACHING

- **Teaching Assistant – Algorithm Design and Analysis, CS Dept - Carnegie Mellon University** Pittsburgh, PA (08/2003 - 12/2003)
 - Teach weekly recitations
 - Hold hours for individual session
 - Grade homework, quizzes, and tests
 - Draft handouts for weekly recitation
- **Teaching Assistant – Principles of Economics, Econ Dept - Carnegie Mellon University** Pittsburgh, PA (08/2002 - 12/2002)
- **Teacher's Assistant Assistant - Physics II, Physics Dept - Carnegie Mellon University** Pittsburgh, PA (01/2002 - 05/2002)

SOFTWARE AND WEB DEVELOPMENT

- **Web Assistant, GSIA - Carnegie Mellon University** Pittsburgh, PA (12/2001 - 12/2002)
 - Created a Faculty Roster system for the Graduate School of Industrial Administration using ASP, and Javascript, in order for faculty to edit their personal information, while allowing others to view it.
 - Worked on other web-pages for the Graduate School of Industrial Administration.
- **MIS Computing Services Intern, EU Services.** Rockville, MD (05/2001 - 08/2001)
 - Used Coldfusion, HTML, Javascript and SQL stored procedures to create a system for clients to reorder printing of jobs already done, through the internet.
 - Used the same technologies to develop a new collection system to track balances due and email invoices.
- **ASP Developer, Paradise Software Inc.** Reston, VA (07/2000 - 08/2000)
 - Used ASP, HTML, and Javascript to develop web pages to interface with the database, and retrieve important information for the freight tracking system, Freight Office.

PROJECTS

- Research - see above.
- Partnered on terminal driver, thread library, kernel, and inode file-system for the x86 architecture
 - Kernel used as basis for reference kernel for 15-410 Operating Systems Design and Implementation - Fall 2003

AWARDS AND ACTIVITIES

- High Honors Dean's List for the Mellon College of Science Fall 2000 - Spring 2001
- Dean's List for the School of Computer Science Fall 2001 - Fall 2003
- National Society of Collegiate Scholars
- Phi Beta Kappa, Phi Kappa Phi -- honor societies

PUBLICATIONS

- Umut A. Acar, Guy E. Blelloch, Robert Harper, Jorge L. Vittes, and Shan Leung Maverick Woo. Dynamizing Static Algorithms with Applications to Dynamic Trees and History Independence. *ACM-SIAM SODA* 2004.
- Umut A. Acar, Guy E. Blelloch, and Jorge L. Vittes. Separating Structure from Data in Dynamic Trees. Technical Report CMU-CS-03-189, Department of Computer Science, Carnegie Mellon University, 2003