

# Juan E. Navarro

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## Education

**Rice University**, Houston, Texas 1998-present  
*Ph.D. in Computer Science* (expected May 2003) GPA: 3.8/4.0  
Dissertation: Transparent operating system support for superpages  
Advisor: Peter Druschel

**Universidad Católica**, Santiago, Chile 1994-1996  
*M.S. in Computer Science* GPA: 6.8/7.0  
Thesis: A Causally Consistent Protocol for Distributed Shared Memory  
Advisor: Alvaro Campos

**University of California**, San Diego Fall 1994  
*Exchange student* GPA: 4.0/4.0

**Universidad Católica**, Santiago, Chile 1982-1987  
*B.A. in Engineering* Graduated with honors

## Experience

**Rice University**, Houston, Texas 1998-present  
*Graduate Research Assistant*

Conducted research on operating systems. Studied how virtual memory is used and stressed by modern workloads, and proposed, implemented and evaluated solutions to improve virtual memory performance and scalability.

**Compaq Systems Research Center**, Palo Alto, Calif. Summer 2000  
*Summer Intern*

Designed and implemented an off-line binary optimizer that uses profile-directed feedback to specialize code by identifying and eliminating excess generality.

**Rice University**, Houston, Texas 1998-2000  
*Teaching Assistant*

TA for Introduction to Computing; Parallel Computing; Operating Systems; Distributed Program Construction; and Automata, Formal Languages, and Computability.

**Universidad Católica**, Santiago, Chile 1996-1998  
*Researcher and Lecturer*

Lectured Concurrent Programming, Operating Systems, an introductory course to programming, and a short course on computer networks. Conducted research on distributed systems. Served as an external services consultant. Designed a cryptographic device to replace the Chilean Tax Bureau stamp in sales receipts by digital signatures (making the process simpler and cheaper for both retail sellers and the Tax Bureau).

**Ingesis Ltda.**, Santiago, Chile 1986-1994  
*Co-founder and project manager*

Served as a consultant. Coordinated small software development teams (5 to 8 programmers) for business applications. Developed a *modem* communication package. Performed technical support and network administration.

## Publications

- Juan Navarro, Sitaram Iyer, Peter Druschel and Alan Cox. Practical, transparent operating system support for superpages. *Fifth Symposium on Operating Systems Design and Implementation (OSDI '02)*, Boston, Mass., Dec 2002.
- Juan Navarro and Alan Cox. Mitosis: a high performance, scalable virtual memory system. Technical report TR01-378, Computer Science Dept., Rice University, April 2001.
- Alvaro E. Campos and Juan E. Navarro. A page-coherent, causally consistent protocol for distributed shared memory. *Journal of Systems and Software* (to appear).
- Juan E. Navarro. Simulación bajo memoria compartida de un sistema distribuido que simula memoria compartida. *III Argentinian Congress of Computer Science*, La Plata, Argentina, Oct 1997.
- Juan E. Navarro and Alvaro E. Campos. Coherent causal consistency in distributed shared memory. *XV International Conference of the Chilean Computer Society*, Arica, Chile, Nov 1995.

## Honors and awards

- USENIX Student Research Grant, 2000.
- Rice University Graduate Fellowship, 1998-present.
- Thesis Support Grant, Universidad Católica de Chile, 1995.
- Teaching Assistant Grant, Universidad Católica de Chile, 1995.
- Tuition Waiver, Universidad Católica de Chile, 1981, 1994-1996.
- Top marks, Universidad Católica de Chile, 1981 and 1982.
- Third national score in the Scholastic Aptitude Test (Physics and Chemistry subject test), Chile, 1980.

## Academic service

- Member of ACM and USENIX.
- Referee for SCCC 1998, IPPS/SPDP 1999, SOSP 2001, PACT 2001, ICS 2002 and OSDI 2002.
- FreeBSD project contributor.
- Administrator of the Systems Group student's machines, Rice University, 1999-2001.
- Computing facilities coordinator, Computer Science Dept., Universidad Católica de Chile, 1997-1998.
- Office of Research and Graduate Studies assistant, School of Engineering, Universidad Católica de Chile, 1997-1998.

## Extracurricular activities

- Rotating Chair (2000) and Treasurer (2001-present) of the Computer Science Graduate Student Association, Rice University.
- Photographer and writer in the 8-month expedition *Along the Roads of Magical America* from Quebec, Canada, to Quito, Ecuador, 1991-1992.
- Articles published in the Chilean newsmagazines *Revista Análisis* and *Los Tiempos*, 1991-1992.