Jim Pruyne

Computer Sciences Department
University of Wisconsin–Madison
1210 West Dayton Street, Madison, WI 53706-1685
(w) 608-262-5386, (h) 608-255-6443
pruyne@cs.wisc.edu http://www.cs.wisc.edu/~pruyne/

Research Interests

Parallel programming environments, resource management and distributed systems.

Education

Ph.D., Computer Sciences, University of Wisconsin-Madison (Expected June 1996)
Thesis: Resource Management Services for Parallel Applications
Advisor: Miron Livny
M. S., Computer Sciences, University of Wisconsin-Madison (May 1992)
B. S., Computer Science, Northwestern University (Aug. 1990)

Honors And Awards

IBM Graduate Fellowship (August 1993 to present)
Tau Beta Pi Engineering Honor Society at Northwestern University

Publications

J. Pruyne and M. Livny, "Managing Checkpoints for Parallel Programs," submitted to *IPPS Second Workshop on Job Scheduling Strategies for Parallel Processing.*

J. Pruyne and M. Livny, "Interfacing Condor and PVM to harness the cycles of workstation clusters," to appear in *Future Generations of Computer Systems*, P. Sloot (ed.)

D.H.J. Epema, M. Livny, R. van Dantzig, X. Evers and J. Pruyne, "A Worldwide Flock of Condors: Load Sharing among Workstation Clusters," to appear in *Future Generations of Computer Systems*, P. Sloot (ed.)

J. Pruyne and M. Livny, "Parallel Processing on Dynamic Resources with CARMI," in *Job Scheduling Strategies for Parallel Processing*, D. G. Feitelson and L. Rudolph (eds.), Springer-Verlag, 1995. Lecture Notes in Computer Science Vol. 949.

J. Pruyne and M. Livny, "Providing Resource Management Services to Parallel Applications," in *Proceedings of the Second Workshop on Environments and Tools for Parallel Scientific Computing* (J. Dongarra and B. Tourancheau, eds.), SIAM Proceedings Series, pp. 152–161, SIAM, May 1994.

Presentations

J. Pruyne and M. Livny, "WoDi: A framework for parallel computing on unreliable resources," PVM Users' Group Meeting, Feb 1996.
R. Manchek and J. Pruyne, "Advanced PVM Tutorial," PVM Users' Group Meeting, May 1995.

J. Pruyne and M. Livny, "Experience with Resource Management Services on an Opportunistic Cluster," PVM Users' Group Meeting, May 1995.

G. Stellner and J. Pruyne, "Providing Resource Management and Consistent Checkpointing for PVM," PVM Users' Group Meeting, May 1995.

J. Pruyne and M. Livny, "Parallel Processing on Dynamic Resources with CARMI," Workshop on Job Scheduling Strategies for Parallel Processing at International Parallel Processing Symposium, April 1995.

J. Pruyne and M. Livny, "Providing Resource Management Services for PVM Applications," PVM Users' Group Meeting, May 1994.

J. Pruyne, M. Livny and M. Litzkow, "Scheduling PVM with a PVM Task," Cluster Workshop '93, December 1993.

M. Livny and J. Pruyne, "Scheduling PVM on Workstation Clusters using Condor," PVM Users' Group Meeting, May 1993.

Work Experience

Research Assistant, University of Wisconsin, Madison WI — 9/92 to present
Work includes enhancements to PVM to allow for resource management by external processes. Used these mechanisms in the development of an Application Programming interface which uses the Condor distributed batch system to schedule PVM applications on opportunistic clusters.

Teaching Assistant, University of Wisconsin, Madison WI — 9/90 to 9/92
Taught lab. sections for introduction to computers class.

Programmer, Rochester Software Connection, Rochester MN — Summer 1989
Developed front-end to IBM AS/400 functions for PC's running Microsoft Windows for start-up company founded by former co-workers at IBM.

System Administrator, Fluid Dynamics International, Evanston IL — 1/89 to 6/89
Performed system administration and programming in a heterogeneous Unix workstation environment. Also developed installation routine for PC release of the company's product.

Programmer, IBM, Rochester MN — Summer 1988
Implemented new function for word processing software on the AS/400. Received highest rating from department manager.

Professional Activities

Member of the Message Passing Interface 2 Forum — Summer 1995 to present

Reviewed Papers for IPPS 1996