

# Gary D. Pack

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## Education

**University of Wisconsin - Madison**  
Ph.D. in Computer Science (In progress)

Madison, WI

**University of Wisconsin - Madison**  
M.S. in Computer Science (GPA 3.5/4.0)

Madison, WI  
May 2005

**University of Wisconsin - Madison**  
B.S. in Computer Science

Madison, WI  
Dec 2003

**University of Missouri - Kansas City**  
Major: Physics Senior Standing

Kansas City, MO  
1984

## Research Interests

My general focus has been on distributed learning, data clustering, and scalability issues related to distributed systems. I am now focusing on computer vision, machine learning, and the scalability of algorithms. Specifically, I am interested in areas where a good understanding of the physics of the imaging process and a priori knowledge of the structures being imaged may be used to enhance information available in the image or for automated knowledge discovery.

## Awards

Computation and Informatics in Biology and Medicine Training Program Predoctoral Trainee, NIBIB-supported, 2008

## Research Experience

### **University of Wisconsin-Madison**

Jan 2006 – present

Research Assistant new collaboration between the Computer Science Vision group and the Brain Imaging Group at the Waisman Center UW-Madison. Professor Charles Dyer Computer Science advisor. Professor Andrew Alexander advisor Brain Imaging Group.

May 2004 – Jan 2006

Research Assistant in the Paradyn Project

Improved the scalability of the Paradyn Parallel Profiler by changing the communication model from a one to many to a multi-cast reduction network for broadcast of control information and scaleable data reduction in the network. Professor Barton Miller advisor.

### **Argonne National Laboratory**

September 1981 – December 1981

Student internship Applied Physics Division

### **Industrial Research and Development**

Outlined in the employment history section.

**Publications**

Gary Pack, Jaeyong Yoon, Eli Collins, Cristian Estan, "On filtering of DDoS attacks based on source addresses," Submitted to NSDI

Dorian C. Arnold, Gary D. Pack, and Barton P. Miller, "Tree-based Overlay Networks for Scalable Applications," Accepted for publication

H. Bowsher, E. M. Gelbard, P. Gemmel and G. Pack, "Magnitude of Bias in Monte Carlo Eigenvalue Calculations," Trans. Am. Nucl. Soc., 45, 324 (1983).

**Books Published****Robots and Robotics**

Franklin Watts, 1984 book with Margaret Baldwin

**Computer Graphics**

Franklin Watts, 1984 book with Margaret Baldwin

**Employment History**

Currently Graduate Student in the Ph.D. program University of Wisconsin-Madison in Computer Science		
Jan 2006 on	Vision/Brain Imaging Group	UW-Madison, WI
	<b>RA</b>	
May 2004	Paradyn Group	UW-Madison, WI
to Jan. 2006	<b>RA</b>	
March 2000	TCS Basys Controls	Middleton, WI
to Oct. 2002	<b>Senior Embedded Systems Engineer</b>	
April 1999	<b>Independent consultant</b>	Middleton, WI
to March 2000		
1990	Triangle MicroSystems	Raleigh, NC
to April 1999	<b>Director of Research and Development - Controls</b>	
1984	Facilitec Controls Incorporated	Kansas City, MO
to 1990	<b>Senior Engineer</b>	
July	Kraft Tank	Overland Park, KS
to Dec 1984	<b>Consultant Robotic Manipulator Arm and other Projects</b>	
Sept.	Argonne National Laboratory	Argonne, IL
to Dec. 1981	<b>Student Internship Applied Physics Division</b>	

**Skill Set**

C, C++, Java, Matlab, Assembler many platforms, perl, awk  
Unix and Windows Platforms

Extensive boardlevel design of embedded distributed control hardware.