

CARLA J. WERDER, P.E.

**** Curriculum Vitae ****

– June 2004 –



Educational Background

Graduate of Colorado State University, Fort Collins, Colorado, 1986, with a **Bachelor of Science in Mechanical Engineering.**

Completed over 400 hours of formal training in Accident Investigation, Advanced Accident Investigation, Traffic Accident Reconstruction, Commercial Motor Vehicle Crash Investigation, Pedestrian and Bicycle Crash Investigation, Biomechanics of Accidental Injury, Head and Neck Injury, and Occupant Kinematics, through the University of North Florida's Institute of Police Technology and Management, Engineering Dynamics Corporation, Texas Engineering Extension Service and the Society of Automotive Engineers.

Professional Affiliations

Registered Professional Engineer, State of Colorado, Registration No. 29559. (1994)

Nationally Certified Accident Reconstructionist, Accreditation Commission for Traffic Accident Reconstruction, Registration No. 680. (1995)

The American Society of Mechanical Engineers; **Associate Member.** (1985)

Society of Automotive Engineers; **member.** (1993)

National Association of Professional Accident Reconstruction Specialists; **Associate Member.** (1995)

Experience

Forensic Engineer, employed by *Thomas L. Alcorn, P.E. & Associates*, Littleton, Colorado. Investigation and reconstruction of motor vehicle related accidents to determine factors contributing to causation and injury severity; conduct accident related research, perform scientific analyses, develop conclusions, prepare expert reports and testify relative to findings.

September 1992 to Present

Experience (cont.)

Product Development Engineer for *The Gates Rubber Company*, Denver, Colorado. Directed application of engineering concepts in the development of new and innovative belt products, manufacturing processes, test methods and procedures. Coordinated project assignments with cost, quality, and performance parameters to meet specific customer and marketing objectives. Analyzed and provided recommendations for application and manufacturing problems. Investigated and disseminated information about competitive products.

June 1986 to September 1992

Corporate Management Trainee for *The Gates Rubber Company*, Denver, Colorado. Performed in a manufacturing engineering function. Assisted in the relocation of the Gates Mold Shop. Responsibilities for this project included: large-scale machine layouts utilizing the concepts of cellular manufacturing and group technology, site planning and preparation, and safety regulation reviews. Developed specifications for the acquisition of materials handling and storage equipment, manufacturing equipment, and manufacturing control software for planning and scheduling sequential machining operations.

June 1986 to February 1987

Technical Support Analyst for the *Institute for Computational Studies*, Fort Collins, Colorado. Programmer and consultant for a wide variety of large-scale scientific applications for the CYBER 205 super computer. Analyst for Sun Microsystems and IRIS graphics workstations with Berkeley and System 5 UNIX operating systems. Participation in the development of the Colorado Computing Communications Network.

June 1985 to June 1986

Data Control Coordinator for the *University Computer Center*, Colorado State University, Fort Collins, Colorado. Assisted in operations of the Computer Center, which included maintaining many computer systems, processing magnetic tape requests and NOS job control language assistance.

September 1983 to May 1985

Accomplishments and Honors

Published in the 1986 ASME Conference, Computers in Engineering. Presented and co-authored "*Computer Applications in Robotic Design*", a paper based on a project involving the dynamic modeling and computer simulation of a robotic welding arm.

Received the **Gates Technological Award** in 1991. Awarded for the development and successful commercialization of an industrial Micro-V belt line with a horsepower rating capacity 20% greater than competitive products.

Member of the **Gates Technical Club** from 1986 to 1992. Elected Treasurer in 1991.