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Gerald W. Jackson, PE *gerry@gjengineering.com*
President, GJ Engineering, LLC

Mr. Gerald Jackson is the President and principal engineer of GJ Engineering, LLC. A mechanical engineer with over 25 years' management and engineering experience in the private sector and 8 years with the U.S. Army, Mr. Jackson specializes in analysis and reconstruction of complex accident events involving on-road, industrial, construction, and agricultural vehicles, equipment, and control systems. In addition to his extensive mechanical engineering training and experience, Mr. Jackson has a strong familiarity with military and agricultural systems and broad experience managing public and private undertakings, from hands-on management of engineering projects to overseeing and directing regional affiliates of an international service organization.

As an engineering consultant, Mr. Jackson applies his engineering background and wide-ranging management experience to the tasks of performing and managing highly technical vehicle and other mechanical systems analyses and projects. Recent projects include performing commercial and passenger vehicle accident reconstructions; investigating industrial incidents involving forklifts, cranes, and other specialized equipment; and analyzing passenger vehicle systems. His many years' experience successfully building and leading multidisciplinary teams puts him in a unique position to grasp and manage all aspects of situational engineering reconstruction challenges, formulate practical technical analyses, and present clear conclusions of scientific and engineering concepts.

Formerly the president and principal engineer of JP Research Engineering, PC, the managing director of the Detroit office of JP Research, Inc., and a senior managing engineer with Exponent/Failure Analysis Associates, Mr. Jackson's consulting experience includes vehicle and industrial accident reconstruction, unintended vehicle movement analysis, vehicle testing, component analysis, machine dynamics studies, and intellectual property research (e.g., patent infringement and trade secrets). He is skilled in non-destructive testing, data acquisition and instrumentation, GPS data analysis, digital imagery, photogrammetry, and spatial geometric relationships.

Mr. Jackson's mechanical engineering background and computer expertise (from programming to hardware integration) led to his becoming an early technical computer animator, developing computer simulations of complex mechanisms to enhance analyses of vehicle and industrial equipment situations and provide easily understandable visual interpretations of their results.

During his military tenure, Mr. Jackson attained the rank of Captain in the U.S. Army and was instrumental in developing simulations of on- and off-road military systems. He holds a patent related to vehicle simulation and testing, and he trained on and was licensed to operate a variety of military vehicles, including heavy trucks and construction equipment.

Mr. Jackson holds professional engineering licenses in nine states.

Education, Memberships, and Professional Honors

University of Iowa	M.S., Mechanical Engineering	1982
University of Iowa	B.S., Mechanical Engineering (US Army Scholarship Cadet; Distinguished Military Graduate)	1981

Licenses

Licensed Professional Engineer, Alabama, #28057
Registered Professional Mechanical Engineer, Arizona, #45493
Registered Professional Engineer, Arkansas, #12648
Licensed Professional Engineer, Illinois, #062.059627
Licensed Professional Engineer, Iowa, #17739
Licensed Professional Engineer, Michigan, #52564
Licensed Professional Engineer, New York, #084631
Licensed Professional Engineer, North Carolina, #037577
Licensed Professional Engineer, Texas, #99689

Certifications

Certificate, Wet Brake and Clutch Technology, Society of Automotive Engineers
Certificate, Fundamentals of Modern Vehicle Transmissions, Society of Automotive Engineers
Certificate, Traffic Accident Reconstruction, Northwestern University

Honors and Awards

Pi Tau Sigma
U.S. Army Commander's Award for Civilian Service Medal
U.S. Army Meritorious Service Medal
U.S. Army Commendation Medal
U.S. Army Achievement Medal
U.S. Army Humanitarian Service Medal

Memberships and Professional Affiliations

Society of Automotive Engineers
Engineering Society of Detroit
American Society for Photogrammetry and Remote Sensing

Casa Colibrí

Director at Large, Board of Directors, November 2015–October 2018

Casa Colibrí is a not-for-profit humanitarian organization committed to helping the Mayan people of northwest Guatemala improve their lives through programs in health, education, and related infrastructure.

Rotary International
District Governor (District 6380), July 2006–June 2007
Slated to be *Vice Governor* (District 6380), July 2017–June 2018
Southeastern Michigan, USA & Southwestern Ontario, Canada
For this international service organization, was responsible for district leadership of over 2000 Rotarians in 44 Rotary clubs in Michigan 8 Rotary clubs in Ontario, Canada. Helped start 5 new Rotary clubs from 2004 through 2009.

International Fellowship of Motorcycling Rotarians – North America
Vice President (North American Chapter), July 2016–June 2019
- Slated to be *President* (North American Chapter), July 2019–June 2022

USA, Canada, Mexico & Central America
For this fellowship with the Rotary International service organization, responsible for leadership of over 300 Rotarians with a special interest in motorcycle riding, organizing events associated with the organization, participating in various motorcycle rides and other events associated with multiple Rotary clubs throughout North America.

Rotary International Youth Exchange
Youth Exchange Student, August 1975–July 1976
Sponsored by the Rotary Club of Bellevue, Bellevue, Iowa. Hosted by the Rotary Club of Claremont/Cottesloe and the Rotary Club of Cunderdin, located near Perth, Western Australia, Australia.

Patent
Patent 4,689,998: Wheeled Vehicle Test Fixture Connector, September 1987
(with D.S. Rohweder)

Professional Experience

GJ Engineering, LLC, Davisburg, Michigan
Principal Consultant, 2016–Present
President and owner of GJ Engineering, LLC. Specializes in analysis and reconstruction of complex accident events involving vehicles, equipment, and control systems. Consults on engineering, research, and litigation projects. Project experience and expertise includes accident reconstruction for passenger car, heavy truck, motorcycle, off-road vehicle and industrial accidents; unintended vehicle movement analysis; vehicle testing; component analysis; and machine dynamics, intellectual property, and GPS data analysis.

JP Research Engineering, PC, Commerce Township, Michigan
President, 2015–2016
JP Research, Inc., Commerce Township, Michigan
Managing Director, Detroit Office, 2014–2016
Managed and provided technical support for engineering, research, and litigation projects. Project experience and expertise included accident reconstruction for passenger car, heavy truck, motorcycle, off-road vehicle and industrial accidents; unintended vehicle movement analysis; vehicle testing; component analysis; and machine dynamics, intellectual property, and GPS data analysis. Management responsibilities included providing engineering

oversight and expertise at the project level, and managing project staff and program elements to ensure product quality and timely response to client needs.

GJ Engineering, LLC, Davisburg, Michigan
Principal Consultant, 2013–2014
President and owner of GJ Engineering, LLC and an independent mechanical engineering consultant to EFI Global, Inc. Specialized in analysis and reconstruction of complex accident events involving vehicles, equipment, and control systems. Consulted on projects involving various vehicles and their components as well as industrial manufacturing and processing equipment.

Exponent, Inc. (formerly **Failure Analysis Associates)**, Farmington Hills, Michigan
Senior Managing Engineer, 1990–2013
Responsible for in-depth analysis and reconstruction of complex accident events involving on-road, industrial, construction, and agricultural vehicles and associated equipment and control systems. Projects included vehicle and industrial accident reconstruction, unintended vehicle movement analysis, vehicle testing, component analysis, machine dynamics, photogrammetry, digital video and photo analysis, and GPS data analysis.

Animated Technologies, Inc., Warren, Michigan
Vice President, 1990
Co-founder of this company focused on technical computer animation and simulation of complex engineering systems, including failure processes.

U.S. Army Tank Automotive Command, Warren, Michigan
Research, Development and Engineering Center
Experimental Research Engineer, Systems Simulation & Technology Division, 1987–1990
Deputy Director,
U.S. Army Captain, Systems Simulation & Technology Division, 1985–1986
U.S. Army First Lieutenant & Captain, Survivability Research Division, 1983–1985
Research included: man-in-the-loop simulation/simulators, mechanical systems dynamics simulation and modeling, and visualization techniques. Also supervised field tests to validate simulation models. Served as a member of the design review boards for a contractor-developed helicopter simulator project and a turret-motion-based simulator project.

U.S. Army Reserves
Commander, U.S. Army Reserve Center in Muscatine, Iowa, 1981–1982
Platoon Leader, U.S. Army Reserve Center in Burlington, Iowa, 1980–1981
Participated in the U.S. Army Reserves while completing college, prior entering active duty.

Selected Presentations and Publications

"Virtual Reality in Accident Reconstruction," Oral presentation. Society of Automotive Engineers 2016 World Congress, April 2016.

"GPS in Accident Reconstruction," Michigan Defense Trial Counsel (MDTC) e-Newsletter, September 2012 (with C. Funk, E. Jacuzzi).

"The Application of Virtual Reality to Accident Reconstruction," Michigan Defense Trial Counsel (MDTC) e-Newsletter, November 2010. Paper republished in *The Update*, Ohio Association of Civil Trial Attorneys (OACTA) 2010 Winter Newsletter.

"Mechanisms of Automatic Transmission Console Shift Selection and Driver Egress," Society of Automotive Engineers 2009 World Congress, April 2009. Paper judged to be among the most outstanding SAE Technical Papers of 2009 and thus further published in the *SAE International Journal of Engines*, Volume 2, September 15, 2009 (with G. Heckman, R. Keefer, R. Ray, E. Harley, D. Young).

"Visual Communication of Engineering and Scientific Data in the Courtroom," *OE/Fibers '92*, September 1992 (with A. Henry).

"Soldier/Machine Interaction Dynamics via TACOM's Motion Base Simulators," American Association for the Advancement of Science 1990 Annual Meeting, New Orleans, LA, February 1990.

"Motion Base Simulator Control via Analytical Based Motion Prediction," *Proceedings, Army Science Conference*, Ft. Monroe, VA, October 1988 (with H. Zywiol, Jr.).

"Dynamic Simulation in Military Vehicle Development," Regional Applied Dynamics International Users Society for Central/Northeastern Areas, Ann Arbor, MI, October 1987.

"TACOM's Animation of Simulation Capability," Invited presentation to Technical Management Committee of the NATO Reference Mobility Model, NATO Headquarters, Brussels, Belgium, June 1986.

"Animation, An Insight to Simulation," North American Meeting of the International Society for Terrain Vehicle Systems Conference, Tucson, AZ, February 1986.

"Interfacing CAD to Dynamic Simulation and Analysis," CAD/CAM, Robotics and Automation Conference, Tucson, AZ, February 1985 (with M. Ricketts).

"Dynamics and Controls in Design and Development," Institute of Environmental Sciences, May 1984 (with R. Beck).

"Computer Aided Analysis of Large Scale, Constrained, Mechanical Systems," 4th Meeting of Coordinating Group on Modern Control Theory, Rochester, Michigan, October 1981 (with E. Haug, R. Beck).