PROFESSIONAL EXPERIENCE

2023 to present **City of Delaware, Ohio - Government**
City Councilman
- Legislative authority for local government policies and ordinances
- Assist in development and adoption of city budget, development, safety, infrastructure, social and economic development, and traffic engineering
- Hold public meetings for hearing and resolving citywide issues

2012 to present **Forensic Human Factors, LLC**
Owner, Human Factors Consultant
Consulting and expert witness services, specializing in litigation support of plaintiff and defense cases related to motor vehicle crashes, slips, trips and falls, workplace incidents, illumination, conspicuity, adequacy of warnings, etc.

2018 to 2019 **VT Hackney, Inc.,** Kidron, OH
Human Factors Consultant – contract work
- Provided human factors consulting, USPS Next-Generation Delivery Vehicle
- Assisted with seat design, control layout, exterior visibility, obstructions

2010 to 2012 **Robson Forensic, Inc.**
Associate
- Provided expert witness services for civil litigation, including investigations, reports, and testimony at depositions and trials
- Consulted with commercial agents in human factors and ergonomics

2006 to 2011 **West Virginia University**, Morgantown, WV
Assistant Professor
- Investigated physiological effects associated with common working tasks
- Studied cognitive demands associated with cell phone use and driving
- Program Director – NIOSH grant in Occupational Safety/Health Engineering
- Taught Industrial Engineering and Safety Management courses

2002 to 2004 **United States Postal Service** (USPS), Merrifield, VA
Ergonomics Consultant – contract work
- Used digital human modeling methods to investigate manual handling tasks
- Performed statistical analyses and developed linear regression models for prediction of injury rates

1999 to 2002 **Design Systems, Inc.**, Farmington Hills, MI
Ergonomics and Simulation Consultant
- Designed and conducted experiments using 3D motion capture and digital human modeling for ergonomic analyses of whole-body movements
- Developed simulation models of assembly plant conveyor systems

PROFESSIONAL CREDENTIALS

Professional Engineer: West Virginia, Kentucky, Florida, Ohio
Certified Professional Ergonomist (Human Factors)
National Floor Safety Institute – B101 Main Committee
OSHA Instructor – "General Industry" and "Construction"

EDUCATION

Ph.D., Industrial & Operations Engineering (Human Factors),
University of Michigan, Ann Arbor, MI, 2006.

M.S., Industrial Engineering (Human Factors/Ergonomics, Manufacturing),
University of Tennessee, Knoxville, TN, 2000.

B.S., Industrial Engineering, University of Tennessee, Knoxville, TN, 1998.

PROFESSIONAL AFFILIATIONS

National Council of Examiners for Engineering and Surveying
Illuminating Engineering Society of North America
Board of Certification in Professional Ergonomics
American Society of Safety Professionals
Human Factors & Ergonomics Society
Society of Automotive Engineers
Society for Neuroscience

INSTRUCTION

Courses Taught

IENG 660 Human Factors Systems Design
IENG 564 Industrial Ergonomics
SAFM 502 Controlling Environmental and Personnel Hazards
SAFM 528 Economic Aspects of Safety
Lectures in Safety Compliance, Safety and Health Training, and others
Invited instructor for Ergonomics Short Course – OSHA 2250

Graduate Student Research

Han..... Modeling of block lifting tasks on biomechanical stresses to masons
Heath..... Effects of cell phone experience and type on driving performance
Malik..... Proposed hazard communication for communities affected by oil/gas pipeline industry
Nave .....Effects of perceived trust in automation in high-stress decision making
Sudhoff..... Cognitive distractions associated with cell phone use while driving
Wolbert..... Intrusion effects on whole body lifting and fatigue

PUBLICATIONS

Rider K, Chaffin D, Martin B. (2007) "Development of Active Human Response Model to Ride Motion," *SAE Transactions – Journal of Passenger Cars, V115-7*: 1131-1137.

Rider K. (2006) "Effects of ride motion perturbation on the speed and accuracy of in-vehicle pointing tasks," PhD Dissertation, University of Michigan.

Rider K. (2006) "Development of active human response model to ride motion", SAE Digital Human Modeling Conference and Exposition, Lyon, France.

Rider K, Martin B. (2005) "Effects of ride motion on the speed and accuracy of in-vehicle pointing tasks," 49th Annual Meeting of the Human Factors/Ergonomics Society, Orlando, FL.

McDowell K, Rider K, Truong N, Paul V. (2005) "Effects of Ride Motion on Reaction Times for Reaching Tasks," *SAE Transactions: Journal of Commercial Vehicles (SP-1962).* SAE International, Warrendale, PA.

Rider K, Chaffin D, Nebel K, Mikol K. (2004) "Modeling In-Vehicle Reaches Perturbed by Ride Motion," *SAE Transactions: Journal of Aerospace 113*(1): 193-198.

Rider K, Chaffin D, Foulke J, Nebel K. (2004) "Analysis and Redesign of Battery Handling using Jack™ and HUMOSIM motions," *SAE Transactions: Journal of Materials and Manufacturing 113*(5): 824-828.

Dickerson C, Rider K, Chaffin D. (2004) "Merging Biomechanical Models of the Shoulder with Digital Human Modeling," 2004-01-2166. SAE International, Warrendale, PA.

Rider K, Park W, Chaffin D, Reed M. (2003) "Redesigning Workstation Utilizing Motion Modification Algorithm," 2003-01-2195. SAE International, Warrendale, PA.

Rider K, Chaffin D, Nebel K, Mikol K, Reed M. (2003) "A pilot study of the effects of vertical ride motion on reach kinematics," *SAE Transactions: Journal of Passenger Cars – Mechanical Systems 112*(6): 719-725.

PRESENTATIONS

Rider K., Odetunde A. (2024). "Direct exam demonstration: Human factors for the truck crash trial lawyer," Academy of Truck Accident Attorneys, Charlotte, NC

Rider K. (2023). "Understanding Crash Avoidance Maneuvers," Academy of Truck Accident Attorneys, Atlanta, GA

Rider K. (2023). "Conspicuity-Assessing and Documenting Lighting Conditions and Nighttime Sight Distances," Academy of Truck Accident Attorneys, Atlanta, GA

Rider K. (2022). "Street lighting: Where it's Needed, not where it's required," IES Street and Area Lighting Conference, Dallas, TX

Rider K, Portigliatti S. (2021). "Conspicuity, human factors and accident reconstruction" VTLA Advanced Auto Retreat, Wintergreen Resort, VA.

Rider K. (2019). "How to excel at expert witness report writing (essentials and failures)," 28th Annual National Expert Witness Conference, SEAK, Inc., Clearwater Beach, FL

Rider K. (2017). "Human Factors leading to injury and death," WVUOV-AALNC, webinar.

Rider K. (2016). "Human Factors in Trucking: Fatigue, Conspicuity or Distraction," National Interstate Trucking Conference, St. Augustine, FL.

Rider K. (2015). "Human factors and shifting comparative fault," National Interstate Trucking Conference, St. Louis, MO.

Rider K. (2013). "Driver distraction and other misunderstood human factors in MVAs" Florida Justice Association, *Masters of Justice Seminar*.

Rider K. (2012). "Current Trends on Driver Distraction: Is texting really dangerous?" Florida Justice Association, *Annual Convention*.

Rider K. (2012). "Forensic Human Factors," WV Association for Justice, *Annual Convention*.

Rider K. (2011). "Forensic Human Factors," Columbus Bar Association.

Rider K. (2011). "Forensic aspects of human factors," Pittsburgh Paralegal Association.

Rider K, Shipp E. (2010). "How to find, use, and win with a forensic expert" (w/ Erin Shipp). Legal Assistants/Paralegals of West Virginia.

Rider K. (2009) "Ergonomics and MSDs in the workplace", OSHA 2250 Short Course, Morgantown, WV.

Rider K. (2008) "Inattention blindness caused by processing conflict within the visual cortex", 38th Annual Meeting of the Society for Neuroscience, Washington, D.C.

Rider K, Martin B. (2006) "Ride motion effects on the accuracy of rapid pointing tasks," 1st American Conference on Human Vibration, Morgantown, West Virginia.

Rider K, Martin B. (2005) "Feedback control of in-vehicle pointing tasks perturbed by ride motion," 35th Annual Meeting of the Society for Neuroscience, Washington, D.C.

Rider K. (2005) "Preview Control Model of Reaching Tasks Under Ride Motion," 15th Semi-annual HUMOSIM Partners' Meeting, Ann Arbor, Michigan.

Rider K. (2004) "Evaluating human in-vehicle reach performance when perturbed by ride motion," 13th Semi-annual HUMOSIM Partners' Meeting, Ann Arbor, Michigan.

Rider K, Chaffin DB. (2003) "Use of digital human modeling to evaluate vehicle maintenance," 12th Semi-annual HUMOSIM Partners' Meeting, Ann Arbor, Michigan.

Rider K, Chaffin DB. (2003) "Vehicle ride motion effects on reach performance," 12th Semi-annual HUMOSIM Partners' Meeting, Ann Arbor, Michigan.

PAST RESEARCH SUPPORT

Agency: National Institute for Occupational Safety and Health
Advanced Biomechanical and Cardiopulmonary Assessment Suit (ABACAS) Program
Investigate the necessary cardiopulmonary and physiological requirements of a self-contained data acquisition suit, by which desired metrics (i.e. biomechanical, physiological) can be unobtrusively obtained and recorded for subsequent processing and analysis. Role: Co-Investigator. Funded: $427,439

National Institute for Occupational Safety and Health - *NIOSH Training Program Grant*
Graduate student training program in occupational safety and health engineering, where trainees learn essential knowledge and skills across a broad range of occupational safety topics, and use engineering, scientific, and analytical methods to identify occupational hazards, to understand failure modes and effects, to engineer out hazards, to implement administrative controls, and to use experiments and engineering models to develop, test and evaluate designs. Role: Program Director. Funded: $1,500,000 (KR: $250,000).