



Doug Powell

Senior Biomechanist

Department

Accident Reconstruction & Forensic Animation

Tel: (901) 341-3019

Email: doug.powell@yaeservices.com

Locations

Memphis, TN

Nashville, TN

Little Rock, AR

Biography

Doug Powell joined the YA Engineering team in 2024. He earned a Bachelor of Science degree in Exercise Physiology and a Master of Arts degree in Biomechanics from East Carolina University. He then earned a PhD in Biomechanics and Sports Medicine from the University of Tennessee (Knoxville) and a Master of Science in Biomedical Engineering from the University of Memphis. Dr. Powell also had a Research Fellowship at Creighton University in the Department of Physical Therapy with a focus in neurophysiology and biomechanics.

Dr. Powell has extensive experience in the area of injury biomechanics, treatment and rehabilitation. His experience includes sport-related injury, motor vehicle collisions, slip/trip and fall events, traumatic brain injury, spine injury and fixation, and injuries to infants (such as shaken baby syndrome). Dr. Powell has provided written and oral testimony in both civil and criminal cases.

Credentials

- Certified Strength & Conditioning Specialist (CSCS)
- Tactical Strength & Conditioning Facilitator (TSAC-F)

Representative Consulting Assignments

- Vehicle Collision Analysis | Investigation and analysis of single and multi-vehicle crashes involving passenger vehicle, motorcycle, bicycle and heavy trucks.
- Injury Potential Analysis | Biomechanical evaluation to determine human body motions and loading and how they compare to established injury tolerance thresholds.
- Evaluation of Child Abuse | Biomechanical evaluation to determine the likelihood an injury is the result of child abuse including shaken baby syndrome.
- Seatbelt Use Analysis | Determination of whether a seatbelt was being worn and how seatbelt use influenced injury outcomes.
- Site Mapping and Visual Recreation | Use photography, drones, laser scanners, and hand measurements to document accident sites for accurate reconstruction and graphics.

Professional Experience

- 2024 - Current | Senior Biomechanist | YA Engineering Services
- 2016 - 2024 | Assistant / Associate Professor of Biomechanics | University of Memphis
- 2013 - 2016 | Assistant Professor of Physical Therapy | Campbell University
- 2011 - 2013 | Assistant Professor of Kinesiology | Fairmont State University

- 2009 - 2011 | Research Fellow of Physical Therapy | Creighton University
- 2007 - 2009 | Assistant Professor of Kinesiology | University of Texas of the Permian Basin

Education

- University of Tennessee - PhD - Biomechanics and Sports Medicine - Knoxville - Tennessee
- University of Memphis - Master of Science - Biomedical Engineering - Memphis - Tennessee
- East Carolina University - Master of Arts - Biomechanics - Greenville - North Carolina
- East Carolina University - Bachelor of Science - Exercise Physiology - Greenville - North Carolina

Training Courses

- Applying Automotive EDR Data to Traffic Crash Reconstruction - SAE International - FALSE
- Vehicle Crash Reconstruction Principles and Technology - SAE International - FALSE
- Fundamentals of Vehicle Dynamics - SAE International - FALSE
- Driver Distraction from Electronic Devices: Insights and Implications - SAE International - FALSE
- Injuries, Anatomy, Biomechanics & Federal Regulation - SAE International - FALSE
- Fundamentals of Automotive All-Wheel Drive Systems - SAE International - FALSE
- Introduction to Brake Control Systems - SAE International - FALSE

Affiliations

- American College of Sports Medicine (Fellow)
 - American Society for Biomechanics
 - German Society for Biomechanics
 - National Strength & Conditioning Association
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