



# **Doug Powell**

#### **Senior Biomechanist**

#### **Department**

Accident Reconstruction & Forensic Animation

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#### 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 multivehicle 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