DESIGN RESEARCH ENGINEERING
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Novi, Michigan 48377
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JAYE L. HELMS, B.S.P.E, M.S.B.

Professional Specialization

Mr. Helms specializes in EDR downloads, scanning, on-site testing, drone photography, photogrammetry, 3D processing and modeling, vehicle dynamics, and crash scene evidence documentation. With attention to detail and a solid understanding of vehicle dynamics, Mr. Helms solves complex accident reconstructions, including automobile collisions and crashes involving tractor-trailers and multiple vehicles. Areas of expertise include:

- Documenting crash scenes using 3D laser scanners, photography, drones, measuring devices, and downloading CDR/EDR data.
- Using engineering principles and momentum equations to calculate crash factors such as impact and departure speeds, collision forces, and vehicle trajectories.
- Performing accident analysis using crash simulation software (HVE, EDSMAC, EDCRASH, FaroZone) and comparative analysis of crash test reports correlating damages based on speed and velocity.
- Collaborating with forensic animators to create scaled 3D models of crash scenes and vehicles.

Professional Experience

Design Research Engineering, Novi, Michigan
Project Engineer, May 2025–Present
Biodynamic Research Corporation, San Antonio, Texas
Engineer I to Senior Engineer, 2021–2025
Halliburton Energy Services, San Antonio, Texas
Field Professional – Wireline and Perforating Services, 2018–2021

Education

Master of Science in Business, Texas A&M University, College Station, Texas
Bachelor of Science in Petroleum Engineering, Texas A&M University, College Station, Texas

Post Graduate Engineering Training

Society of Automotive Engineers:
Applying Automotive EDR Data to Traffic Crash Reconstruction, 2023
Applied Vehicle Dynamics, 2022
Vehicle Crash Reconstruction: Principles and Technology, 2022
Federal Aviation Administration (FAA), Remote Pilot – Small Unmanned Aircraft Systems, 2022
Institute of Police Technology and Management (IPTM), University of North Florida:
Traffic Crash Reconstruction I & II
Advanced Traffic Crash Investigation, 2022
At-Scene Traffic Crash/Traffic Homicide Investigation, 2022
Bosch CDR Tool Technician, 2021
FARO Freestyle 2, San Antonio, Texas - Certificate of Participation, 2021

Certifications and Licenses

Accredited Traffic Accident Reconstructionist ACTAR #4397, Accreditation Commission for Traffic Accident Reconstruction, 2022
FAA Remote Pilot License, Small Unmanned Aircraft Systems (sUAS)

Professional Memberships

Society of Automotive Engineers (SAE) – Member
National Association of Professional Accident Reconstruction Specialists (NAPARS) – Member