



# Ryan D. McMahan, PE

#### PROFESSIONAL ENGINEER

North Carolina #034982 (Dec. 2008)

### **UAS (drone) Remote Pilot**

FAA certificate #4076203 (Dec. 2017)

#### **EMPLOYMENT**

Partner / Consulting Engineer (Feb. 2024 – Present)
IMPACT FORENSICS, PLLC – CARY, NORTH CAROLINA

Technical investigation, analysis, and deposition/trial testimony regarding accidents and failures involving vehicles and machinery. Areas of work and expertise include accident reconstruction, engineering analysis, technical investigation, failure analysis, standards research, and laboratory testing in the areas of mechanical and automotive engineering and machine design, applied to vehicle accidents (commercial vehicle/heavy trucks, automobiles, motorcycles, bicycles, and pedestrian/vehicle), heavy equipment accidents, construction accidents, and product failures and testing.

Consulting Engineer (June 2006 – Jan. 2024)
ACCIDENT RESEARCH SPECIALISTS, PLLC – CARY, NORTH CAROLINA

Technical investigation, analysis, and deposition/trial testimony regarding accidents and failures involving vehicles and machinery. Areas of work and expertise are the same as listed above.

Consulting Engineer (Jan 2004 – June 2006)
MULKEY ENGINEERS AND CONSULTANTS, INC. – CARY, NORTH CAROLINA

Technical investigation, analysis, and deposition/trial testimony regarding accidents and failures involving vehicles and machinery. Areas of work and expertise are the same as listed above.

Engineering Technician (Sept. 2003 – Dec. 2003)
FORENSIC ENGINEERING, INC. – RALEIGH, NORTH CAROLINA

Project assistant responsible for performing time trials, tests and use of crash reconstruction software. Assisted in investigations of loss due to flood, fire and water damage.

#### **EDUCATION**

**Bachelor of Science, Mechanical Engineering** (Dec. 2003) NORTH CAROLINA STATE UNIVERSITY – RALEIGH, NORTH CAROLINA

Minors: Graphic Communication, Business Management (Dec. 2003) NORTH CAROLINA STATE UNIVERSITY – RALEIGH, NORTH CAROLINA

#### **MEMBERSHIP**

# Society of Automotive Engineers (SAE)

## National Association of Professional Accident Reconstruction Specialists (NAPARS)

#### CONTINUING EDUCATION

ARC/Collision Safety Institute – *Crash Conference* (6/04 and 6/05)

MEA Forensic – PC-Crash and PC-Rect Training Workshop (12/04)

Collision Safety Institute - Crash Data Retrieval (CDR) Technician Training (12/06)

Bendix Commercial Vehicle Systems – Air Brake Introductory Class (10/09)

NAPARS – Heavy Vehicle Crash Reconstruction (10/09)

Society of Automotive Engineers – Highway Vehicle Event Data Recorder Symposium (6/11)

Ruth Consulting – Use of Event Data Recorders in Traffic Crash Reconstruction (11/12)

SunCam - Work Zone Traffic Control (10/13)

SunCam – Forensic Engineering (Part A & Part B) – Metallic Material Failures (11/13)

Red Vector – OSHA Fatal Accidents & Prevention (12/13)

Red Vector - OSHA Cranes, Derricks, Hoists, Elevators & Conveyors (12/13)

MEA Forensic – PC-Crash Advanced Training (10/14)

SunCam – Fundamentals of Concrete (11/14)

SunCam – Fundamentals of Steel, Part A & B (12/14)

Society of Automotive Engineers – *Tire Forensic Analysis* (4/15)

SunCam – Manual on Uniform Traffic Control Devices, Part I & II (12/15)

Trailer Side-Underride Testing (3/16, 1/17)

SunCam – *Intersection Safety* (12/16)

SunCam – *Drive Trains and Linkages* (1/17)

IIHS – Truck Underride Roundtable/Testing (8/17)

FAA – Remote Pilot Certificate, Small Unmanned Aircraft Systems (12/17)

MEA Forensic – *PC-Crash 3 Day Training Workshop* (1/19)

Ruth Consulting – CDR Update Workshop (11/20)

MEA Forensic – PC-Crash: Using EDR Data workshop (4/21)

Berla Corp. – *iVE update webinar* (5/21)

MEA Forensic – *PC-Crash: Using Video Data workshop* (6/21)

Continuing Education & Development Inc – Self-Driving Cars (12/21)

Protective Resources Inc. – Digital Video Forensics (3/22)

NAPARS – Bendix Pro Update Workshop (11/22)

NAPARS – EDR Update (2/23)

NAPARS – Aerial Photogrammetry in Crash Reconstruction (3/23)

NAPARS – Human Factors in Crash Reconstruction (4/23)

NAPARS – Heavy Vehicle EDR Update (7/23)

Stop Underrides – Raleigh Underride Crash Test Event (8/23)