

Stephen Paul Mangum

Managing Forensic Expert – Accident Reconstruction

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NOT FOR EXPERT DESIGNATION

EDUCATION

Texas Tech University: Lubbock, Texas
Bachelor of Science in Mechanical Engineering, December 2016

Texas Tech University: Lubbock, Texas
Master of Science in Mechanical Engineering, May 2018

PROFESSIONAL CERTIFICATES AND CONTINUED EDUCATION

Federal Aviation Administration
Remote Pilot sUAS Certification, February 2019

Northwestern University Center for Public Safety
Traffic Crash Investigation I, May 2022 Traffic Crash Investigation II, July 2022

Driver Research Institute
IDRR Forum, February 2023

ACTAR Accreditation
ACTAR Number 4559, April 2023

PhotoModeler for Collision Investigation
April 2024

SAE Fundamentals of Vehicle Dynamics
June 2024

SAE Applying Automotive EDR Data to Traffic Crash Reconstruction
October 2024

SAE Vehicle Crash Reconstruction: Principles and Technology
October 2025

SAE Driver Distraction from Electronic Devices: Insights and Implications
December 2025

SAE The Fundamentals of Automotive All-Wheel Drive Systems
December 2025

WORK EXPERIENCE

June 2018 – Current
Aperture Companies, LLC (*formerly Scientific Analysis, Inc.*)
Forensic Expert
- *Investigation, analysis, and reconstruction of motor vehicle accidents through the use of scientific processes*
- *Accident scene and vehicle inspection, photography, and measurement*
- *Creation of trial exhibits and testimony aids including scene and vehicle diagrams, and reconstruction exhibits*

March 2016 – Dec. 2017
Texas Tech University
Graduate Research Assistant
- *Studied numerical simulation of machining methods using finite element modelling*
- *Created thermomechanical, elastic-plastic, and failure models for metallic and polymeric materials*
- *Performed thermal simulations on metallic machine tooling components*

AFFILIATIONS AND HONORS

Texas Tech University Honors College Graduate
Summa Cum Laude Graduate for Bachelor and Master of Science
Society of Automotive Engineers Member

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