FOCUS FORENSICS

MINNEAPOLIS
ORLANDO
SALT LAKE CITY
TALLAHASSEE
TAMPA
WEST PALM BEACH

Please Respond to
Administrative Address:
133 East 143rd Avenue
Tampa, FL 33613

Curriculum Vitae

Trent M. Ksionek, P.E.

Forensic Engineer

Professional Profile

Mr. Ksionek is a licensed Professional Engineer practicing in the fields of mechanical engineering, collision reconstruction, vehicle dynamics, and failure analysis. His extensive background includes the design and manufacturing of vehicle systems and other mechanical engineering components as well as hands-on applications as a race car driver and mechanic. Mr. Ksionek brings his passion for understanding vehicle dynamics and collision events to his work at Focus Forensics, where he conducts investigations and engineering analysis of factors related to vehicles, drivers, and roadway environments. His training and practical experience in the engineering field include data collection at vehicles and scenes, 2D and 3D modeling, analytical tools and calculation methods, applications of new technologies, and driver human factors considerations. Mr. Ksionek has completed hundreds of comprehensive collision reconstruction analyses and is certified as an Accredited Traffic Accident Reconstructionist by ACTAR.

His role includes field investigations, data collection, vehicle and scene documentation, electronic data retrieval, and inspections of vehicular and roadway systems. Mr. Ksionek utilizes cutting edge technology to capture evidence and preserve electronic information, including FARO 3D laser scanning, Total Station laser mapping, Bosch CDR vehicle download system, commercial vehicle Engine Control Module (ECM) data extraction systems, unmanned aerial vehicle (UAV) mapping and imagery, speedometer inspection, forensic photography, photogrammetry, and traffic signal data documentation. He also incorporates the latest developments in engineering software, modeling, physics calculation methods, and rigorous analytical tools for evaluation of a wide variety of collision scenarios. Mr. Ksionek is skilled in forensic diagramming and 3-D modeling for the analysis and demonstrative visual communication of engineering concepts.

Licensure and Professional Certification

Professional Engineer, State of Florida, # 92912

Accredited Traffic Accident Reconstructionist (ACTAR), #3733

Certified Accident Reconstructionist
Society of Automotive Engineers

Remote Pilot – Small Unmanned Aircraft System
Federal Aviation Administration

Intermediate Temporary Traffic Control, Florida Department of Transportation (FDOT)

Certified Crash Data Retrieval (CDR) Technician and Analyst, Bosch

Contact Information

Cell: (561) 406-3772
Trent@focusforensics.com

West Palm Beach Office
2656 Greenway Drive
Jupiter, FL 33458

Education

Florida Atlantic University
Boca Raton, Florida
B.S. in Mechanical Engineering, 2017
M.S. in Business Administration, 2022

Work Experience

Focus Forensics, LLC
Engineer: *2022-Present*

Kimley-Horn
Forensics Analyst: 2017-2021

Pratt & Whitney
Quality Engineering Intern: 2016

Orlando Utilities Commission
Mechanical Engineering Intern: 2015

Professional Affiliations

Society of Automotive Engineers (SAE), Member

Professional Development

Ai2-3D

- Zero to Hero in Cloud Compare, 2023

Driver Research Institute/ Crash Safety Solutions

- IDRR/Response User Forum, 2025

Focus Forensics, LLC

- Transportation Engineering and Accident Reconstruction Insights, 2022
- Transportation Engineering and Accident Reconstruction Insights, 2024
  - Human Factors for Driver Response
  - Traffic Signal Design and Operation
  - Transportation Engineering Sight Distance Standards
  - Automotive Mechanical Systems and Data Acquisition
  - Photogrammetric Methods
  - Video Analysis with Telemetry Data
  - LIDAR Scanning and Data Processing
  - Virtual Crash Applications for Simulation and Animation
  - PC Crash Applications for Steering and Yaw Rate
  - Expert Testimony Regulations and Standards
  - Commercial Vehicle EDR Data Extraction and Analysis
  - Vehicle EDR Systems for Toyota and General Motors
- Transportation Engineering and Accident Reconstruction Insights, 2025
  - EDR Extraction and Analysis Methods for Video Radar Decision Units (VRDU)
  - Acquisition and Analysis Methods for Temporary Roadway Conditions
  - LIDAR Scanning and Data Processing
  - Air Brake Testing Standards and Techniques
  - Heavy Vehicle EDR Extraction and Analysis Methods
  - Drone Mapping Techniques and Processing
  - Data Processing and Analysis with Cloud Compare
  - Photogrammetry Software Methods and Techniques
  - Technology for Capturing Photo/ Video Demonstratives of Available Driver Views
  - Telemetry Overlay Software Techniques and Processing
  - VCrash Animations and Simulations for Pedestrian and Bicycle Collisions
  - Monte Carlo Statistical Analysis for Uncertainty Ranges
  - Human Factors Analysis of Road User Detection and Response
  - Transportation Engineering Design and Limitations for Micromobility Vehicles on Sidewalks
  - EDR Vehicle Yaw and Steering Data Simulation, Analysis and Modeling
  - Contextual Evaluation of Slow-Moving Lead Vehicle Scenarios and Looming Calculations
  - Comprehensive Context Points for Collision Reconstructions

Kimley-Horn

- Certified Accident Investigator, 2018
- Certified Hyundai & Kia EDR Specialist, 2018

Leica Geosystems

- Leica Geosystems 3D Scanning Course, 2018

Lightpoint Learning

- Motorcycle Collision Reconstruction, 2022

Metro Florida Safety Council

- Maintenance of Traffic, Intermediate Level, 2018

National Association of Professional Accident Reconstruction Specialists (NAPARS)

- Symposium on EDR Research and Training, 2024

Professional Development Continued

Northwestern University Center for Public Safety

- Crash Data Retrieval (CDR)Technician, 2018
- Traffic Crash Investigation 1, 2018
- Traffic Crash Investigation 2, 2018
- Traffic Crash Reconstruction 1, 2018
- Traffic Crash Reconstruction 2, 2018
- Heavy Vehicle Crash Reconstruction, 2019
- Advanced Crash Reconstruction Utilizing Human Factors, 2019
- Advanced Driver Assistance Systems for the Crash Reconstructionist, 2026

PhotoModeler Technologies

- PhotoModeler for Collision Investigation, 2018

Recon-3D (R3D)

- Recon-3D User Group Meeting, 2025
- Recon-3D Training Course, 2025

SAE International

- Vehicle Crash Reconstruction: Principles and Technology, 2022
- Advanced Applications of Heavy Vehicle EDR Data, 2023
- Fundamentals of Vehicle Dynamics, 2024
- Applying Automotive EDR Data to Traffic Crash Reconstruction, 2025
- Driver Distraction from Electronic Devices: Insights and Implications. 2025
- Fundamentals of Automotive All-Wheel Drive System, 2025

World Reconstruction Exposition (WREX)

- World Reconstruction Exposition (WREX), 2023
  - Video Analysis in Collision Reconstruction
  - Dashboard Cameras & Human Vision
  - A Simulated Look at the Effects of Pedestrian Lateral Velocity on Post-Impact Trajectory
  - The Forgotten Force – Motorcycle-to-Auto Side Impact Modeling
  - Nighttime Recognition and Visibility
  - Distracted Driving Crash Investigations
  - Injury Reconstruction with Biofidelic Dummy