

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

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

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

### **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

#### 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

## **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

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## 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

#### 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

#### **PhotoModeler Technologies**

PhotoModeler for Collision Investigation, 2018

#### **SAE International**

- Vehicle Crash Reconstruction: Principles and Technology, 2022
- Advanced Applications of Heavy Vehicle EDR Data, 2023
- Fundamentals of Vehicle Dynamics, 2024

#### World Reconstruction Exposition (WREX)

 World Reconstruction Exposition (WREX), 2023