

Institute of Risk & Safety Analyses

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Laboratory of Risk & Safety Analyses

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JORGE GARCIA, B.S.
SENIOR FORENSIC SCIENTIST

ACADEMIC CREDENTIALS

B.S. Mechanical Engineering, California State University of Northridge, 2016

CERTIFICATES

- Crash Data Retrieval (CDR) Technician Level I & II Courses 2019
- NAPARS Virtual Training: EDR Update 2023
- World Reconstruction Exposition 2023
- Heavy Vehicle EDR Update 2023
- NAPARS Virtual Training: Determining Vehicle Speed from an Audio Recording 2024
- NAPARS Virtual Training: Critical Speed Yaw Analysis 2024
- Advanced EDR Analysis Course 2024
- NAPARS Virtual Training: Toyota Safety Systems 2024
- Tire Forensic Analysis Training 2024
- Hyundai-Kia EDR Tool & Tesla EDR Tool Operator/Technician 2024

MEMBERSHIP

Society of Automotive Engineers

National Association of Professional Accident Reconstruction Specialists

Areas of Expertise:

ACCIDENT RECONSTRUCTION, HUMAN FACTORS, BIOMECHANICS, ANIMATION, 3D SCANNING, EDR IMAGING, AND COMPUTER DRAFTING

Mr. Garcia applies his experience with the principles of physics and mathematics to analyze and reconstruct accidents. For transportation accidents, he uses the analysis and problem solving skills that he refined in his undergraduate years to investigate accidents and to determine information that is vital to the reconstruction of the accident, such as the angle of impact, crush depths, change in velocity, G-forces, speeds of the vehicles involved, and the accelerations and forces experienced as a result of a collision. For premises liability, he utilizes his knowledge of the UBC, ANSI standards, and OSHA standards to determine liability.

Past Work Experience:

Mr. Garcia earned his Bachelor of Science in Mechanical Engineering from California State University, Northridge. The acquisition of such a degree required study of static and dynamic systems, thermodynamics, material science, computer-aided analysis, hydraulics, mechatronics, alongside internal combustion engines and fundamentals of energy systems. Mr. Garcia's previous experience includes creating work instructions for cable harness assemblies at SCB Division of DCX-CHOL Enterprises in Bell Gardens, California. In doing so, he is able to interpret specifications and analyze how, where and why processes fail. Mr. Garcia also has hands-on auto body repair experience that he attained by assisting his father at an auto body shop for several years.

IRSA Training/Courses:

- Principal foundation of Accident reconstruction I, II, II (IRSA course)
- Human Factor in automotive accidents I, II (IRSA course)

Continued Education:

WREX 2023 – World Reconstruction Exposition Courses/Crash Tests:

WREX Courses:

- EDR Accuracy of Modern Vehicles
- Analysis of Sideswipes and Glancing Impacts
- The Importance of Tires in Accident Investigation
- Nighttime Recognition and Visibility
- Time Distance Analysis in Collision Reconstruction
- Retroreflective Material Analysis
- How Reliable are Frozen Speedometers in Accident Reconstruction
- Comparison of Skidding Vehicle Drag Factor on Various Surfaces
- Muttart Human Factors Study
- Heavy Vehicle EDR Update
- ATV Collision Investigations
- Heavy Vehicle Side and Rear Underride Speed Analysis
- Injury Biomechanics and the Accident Reconstructionist

WREX Crash tests:

- Head on 50% offset (Chevy 56 vs Ford 06)
- Vehicle vs Pedestrian in Wheelchair
- Head on Heavy Vehicle Crash
- Vehicle vs Pedestrian with walker
- Head on 50% offset (Volvo vs Silverado)
- Moving Car vs Moving MC
- Vehicle vs Bicycle
- Vehicle vs Pedestrian
- Vehicle vs Motorcycle
- Silverado vs Crown Vic offset
- Motorcycle vs Barricade
- Stationary car rearend crash (pushed into bus)
- Vehicle vs E-Scooter

Event Data Recorder (EDR) and Accident Reconstruction Related Courses:

- Crash Data Retrieval (CDR) Technician Level I & II Courses 2019
- NAPARS Virtual Training: EDR Update 2023
- Heavy Vehicle EDR Update 2023
- Advanced EDR Analysis Course 2024
- NAPARS Virtual Training: Determining Vehicle Speed from an Audio Recording 2024
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