Edgar A. Marroquin

MSME

Staff Consultant

Mr. Edgar Alexander Marroquin is a Staff Consultant for Engineering Systems Inc. (ESi) where he specializes in the investigation and analysis of vehicle collisions. Drawing on his background in mechanical engineering and automotive performance, Mr. Marroquin evaluates crash mechanics, vehicle behavior, and physical evidence to help clients understand the technical circumstances surrounding complex incidents. His work is grounded in careful analysis, engineering principles, and a practical understanding of vehicle systems.

Before joining ESi, Mr. Marroquin developed his engineering expertise through performance-focused automotive work, including experience with Honda Performance Development. In that role, he gained valuable exposure to vehicle systems, testing, mechanical evaluation, and failure analysis. This experience provided him with a strong technical foundation and deepened the skills he now applies to accident reconstruction and forensic investigations.

Mr. Marroquin holds both a bachelor's and a master's degree in mechanical engineering from California State University, Los Angeles. Since completing his master's degree in 2021, he has continued building on his technical expertise through practical engineering and reconstruction-related work. He brings a detail-oriented, analytical approach to every matter and is committed to delivering accurate, well-supported, and technically sound evaluations.

Education

MS, Mechanical Engineering. California State University Los Angeles, CA. 2021

BS, Mechanical Engineering. California State University Los Angeles, CA. 2019

Licenses & Certifications

- FARO Focus Scanner User Certification

Contact Information

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ESi Santa Ana

1719 South Grand Avenue

Santa Ana, CA 92705

Areas of Specialization

- Automotive Design and Manufacturing
- Commercial Vehicles and Heavy Trucks
- Data Acquisition and Testing
- Failure Analysis
- Mechanical Engineering
- Motor Vehicle Accident Investigation & Reconstruction
- Motorcycle Operation and Dynamics
- Vehicle Event Data Imaging
- Vehicle Testing & Dynamics

Languages

- English
- Spanish (Professional Working Proficiency)

Positions Held

Engineering Systems Inc., Santa Ana, California

- Staff Consultant, 2026 – Present

Young and Associates Engineering Services, Torrance, California

- Accident Reconstructionist II, January 2026 – August 2026
- Accident Reconstructionist I, 2024 – 2026

Honda Performance Development, Santa Clarita, California

- System Simulation Engineer, 2022 – 2023

Northrop Grumman, Palmdale, California

- Mentor Protégé Internship, 2020 – 2021

California State University Los Angeles, Los Angeles, California

- Machine Shop Lab Technician, 2018 – 2019

Continuing Education

- **Accessing and Interpreting Heavy Vehicle Event Data Recorders** – SAE, June 2026
- **Advanced Vehicle Dynamics for Passenger Cars and Light Trucks** – SAE, May 2025
- **The Fundamentals of Vehicle Dynamics** – SAE, April 2025
- **Technician (Crash Data Group)** – CDR, December 2024
- **SolidWorks Mechanical Design Associate (C-AMU239N5BF)** – Dassault Systems, January 2020
- **Motorcyclist Training Course** – CMSP, March 2014

Professional Affiliations/Honors

Society of Automotive Engineers (SAE)

- Member

Publications

“Analytical Model of a Continuously Variable Transmission Using Variable-Diameter Pulleys,” **E.A. Marroquin** and J.C. Bachman, Master's Thesis, California State University, Los Angeles, 2021.