



Kiana Vallante, BSBME

Kiana Vallante is an accomplished engineering professional and graduate of The University of Texas at Austin, with a strong foundation in advanced engineering principles and analytical methodologies, specializing in biomechanical analysis and occupant kinematics.

Her technical expertise includes the application of engineering software and analytical tools such as MATLAB, RStudio, Arduino IDE, SOLIDWORKS, and Fusion 360. She applies these technologies to support the evaluation, visualization, and analysis of complex vehicle collision and occupant dynamics.

Kiana has experience conducting vehicle and collision site inspections, performing digital mapping and 3D scanning, capturing drone-based aerial photography and imaging, and retrieving and analyzing passenger vehicle Event Data Recorder (EDR) information. Her work incorporates engineering analysis, detailed documentation, and technical interpretation to support comprehensive collision reconstruction.

She also prepares professional technical reports and contributes to the development and presentation of engineering opinions and expert witness testimony. Her combination of engineering education, analytical capabilities, and hands-on collision reconstruction experience provides a strong technical foundation for the investigation and analysis of complex vehicular collisions.

CERTIFICATIONS AND PROFESSIONAL MEMBERSHIPS

University of Texas, Austin	
BS Biomedical Engineering	2026

SPECIALIZED COURSEWORK AND CONFERENCES

- Association for the Advancement of Automotive Medicine (AAAM) since 2026

CAREER ENGAGEMENTS

10/2026 – Present

Crash Engineer, L.L.C., San Antonio, Texas

Engineer I. Provides engineering analysis and reconstruction of vehicular collisions involving passenger vehicles, heavy trucks, motorcycles, bicycles, and pedestrians. Applies established scientific and engineering methodologies to evaluate collision dynamics, including the kinematics and kinetics of vehicles and occupants.

Responsibilities include conducting comprehensive vehicle and collision site inspections, performing digital mapping and documentation of collision scenes, and retrieving and analyzing passenger vehicle Event Data Recorder (EDR) information.

Utilizes mathematical modeling, computer simulations, and advanced animation techniques to reconstruct, model, and visually demonstrate collision events and vehicle dynamics. Prepares detailed professional engineering reports and contributes to the development and presentation of technical opinions and expert witness testimony.

RESEARCH PROJECTS

University of Texas – Austin

Designed and developed a sensor-integrated biomedical device capable of measuring force and torque to support student training, technique assessment, and performance evaluation. Led the design and prototyping process, incorporating sensor development, Arduino programming, and SOLIDWORKS modeling to create and refine a functional biomedical monitoring system.

The project involved integrating hardware, sensors, programming, and mechanical design to develop a practical engineering solution for monitoring exposure and evaluating biomechanical performance.