



Paulina Muñoz Santos, BSBME

Paulina Muñoz Santos is a graduate from the University of Texas at San Antonio, with a sound overall knowledge of leading-edge engineering principles, tools, and practices, with emphasis in biomechanical analysis and occupant kinematics.

She is proficient in the use of various automated solutions including current releases of FARO 3D, HVE 3D, ScanIP, MATLAB, LS-Dyna and MADYMO.

She has conducted vehicle and site inspections, digital mapping of collision sites, vehicle scanning, drone aerial photography and imaging of passenger vehicle Event Data Recorders (EDR). She prepares professional reports and presents expert witness testimony. Ms. Muñoz Santos is also fluent in Spanish, English and French.

EDUCATION

University of Texas, San Antonio	
BS Biomedical Engineering	2023

PROFESSIONAL MEMBERSHIPS

Association for the Advancement of Automotive Medicine (AAAM) since 2023

SPECIALIZED COURSEWORK AND CONFERENCES

- *Occupational Kinematic Analysis, Airbrake Inspection and Planar Impact Mechanics*, September 2022
- *Crush Analysis and Collinear Momentum Analysis*, October 2022
- *BMES National Annual Meeting*, October 2022

CAREER ENGAGEMENTS

05/2023 – Present

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

Engineer I. Provide analysis of the kinematics and kinetics of passenger vehicle, heavy truck, motorcycle, bicycle and pedestrian collisions using scientific methods. Conduct vehicle and site inspections, digital mapping of collision sites and imaging of passenger vehicle Event Data Recorders (EDR). Utilize mathematical models and prepare computer simulations and animations to model and visualize vehicular collisions. Prepare professional reports and present expert witness testimony.

06/22-12/22

J. Eftekhar & Associates, San Antonio, Texas

Engineering Intern: Responsibilities include, but not limited to, performing biomechanical analysis to demonstrate occupant kinematics in car crashes. Conduct vehicle and site inspections to investigate car crash evidence. Run computer simulation to determine severity of car crash impact. Assisted testifying experts in crash and injury causation analysis and report writing.

RESEARCH PROJECTS

Memar Lab - University of Texas at San Antonio

Undergraduate Research: Assist a postdoctoral researcher in computational biomechanics. Developed a detailed finite element model of the ferret brain to computationally reconstruct traumatic brain injury experiments. Determined impact on ferret brain by running FE simulations.

University of Texas at San Antonio

Senior Design Project: Developed probe holder for use in conjunction with a robotic system to perform automatic ultrasound imaging in combat casualty care. Created CAD design and prototype for testing theoretical limits of device.

AWARDS

Undergraduate Research Grant - University of Texas at San Antonio

Peter T. Flawn Presidential Honors Endowed Scholarship - University of Texas at San Antonio