aperture

formerly american bio engineers

Tyler J. Kryst, MSBE, CXLT
Accident Reconstruction/Biomechanical Specialist and Forensic Expert

EDUCATION

- Master of Science in Biomedical Engineering
  University of Nevada Las Vegas, 2021

- Bachelor of Science in Biology
  University of Nevada Las Vegas, 2019

CERTIFICATIONS

- Certified XL Tribometrist (CXLT) certification by Excel Tribometers, LLC knowledgeable in wet & dry slip testing and the analysis of pedestrian slip/trip & fall incidents, 2022.

EXPERIENCE

American Bio Engineers, LLC, 2021/Present

6351 Hinson St., Ste. R
Las Vegas, NV 89118

- Accident Reconstruction with areas of expertise in Vehicular Accidents, Vehicular Dynamics, Speed Analysis, Time/Motion Studies, Vehicle Maintenance, and Design Strength Analysis.

  Types of cases reconstructed include: Auto v. Auto Collisions, Auto v. Heavy Truck/Trailer Collisions, Auto v. Truck Collisions, Auto v. Motorcycle Collisions, Auto v. Pedestrian Collisions, and Vehicle Rollovers.

University of Nevada Las Vegas, 2019/2021

4505 South Maryland Pkwy.
Las Vegas, Nevada 89154

- Instructed undergraduate students on the analysis of mechanical failure and material properties in addition to demonstrating experimental techniques using a variety of lab equipment.
- Developed a system for data collection and management to be used by UNLV School of Medicine's NIHAN Team.

<u>ASSOCIATIONS</u>
- Southwestern Association of Technical Accident Investigators

<u>SPECIALIZED TRAINING SEMINARS ATTENDED</u>
- "Human Subjects for Biomechanical Research Workshop" presented by *National Highway Traffic Safety Administration (NHTSA)* (Virtual Event, 2021)
    - Compressive Material Properties of Human Costal Cartilage
    - Characterization of Subcutaneous Pelvic Adipose Tissue for the Enhancement of Human Surrogate Models
    - Development of Injury Criteria of Liver for THUMS v6.1 – Challenge Toward Liver Injury Mitigation
    - Quantitative Evaluation of Gravity Settling Methods for Virtual Assessment in Human Body Models
    - The Effect of an Acoustic Startling Pre-stimulus Warning on Forward-leaning Vehicle Occupants in Pre-crash Scenarios
    - Pre-impact Bracing Variability in 5th Percentile Female and 50th Percentile Male Volunteers Prior to Low-speed Frontal and Frontal-oblique Sled Tests
    - Evaluation of the Biofidelity of Hybrid III 50th Male and THOR-50M in Reclined Frontal Impact Sled Tests
    - THOR-AV Biomechanical Responses in Sled Test Conditions
    - Comparison of Small Female Thoracic Responses to Scaled Response Corridors in a Frontal Hub Impact
    - Thoracic Response and Injury Analysis of Small, Elderly Female PMHS in Simulated Near-Side Crashes
    - Thoracic Injury Criteria Considerations for the THOR 5th ATD
    - Development of FE Models for the Advanced Small Female Dummies with Improved Biofidelity
    - Reconstructing and Assessing Confidence of Finite Element Simulations of CIREN Crashes
    - Comparison of Kinematic Behavior and Injury Measures of Male THOR and GHBMC M50-O v6.0 Model in Oblique Far-Side Sled Tests
    - Understanding the Pre-impact Conditions of a Headfirst Impact in a Motor Vehicle Rollover: Part I of a Human Subject Experiment
    - Validation of Rotational Head Kinematics in IIHS Rear-end Impact Tests Determined by Video Analysis
    - Rapidly and Accurately Estimate Brain Strain and Strain Rate Across Impact Types with Transfer Learning

- "SATAI Crash Conference" presented by the *Southwestern Association of Technical Accident Investigators (SATAI)* (Glendale, AZ, 2022)
    - Member of the "Crash Crew" for instrumented crash testing
    - Low Speed Front and Rear Impact Validation Testing of 2013 Subaru Outback and 2012 Honda Civic EDR Trigger Thresholds with Instrumented Human Volunteers
    - Front and Rear E-scooter Impacts Using an Anthropomorphic Test Dummy (ATD)
    - Retroreflectivity and Headlamp Mapping