

KRYSTA-LYNN H. AMEZCUA

CURRICULUM VITAE

EDUCATION

B.S. Biomedical Engineering 2016
The University of Texas at San Antonio
San Antonio, Texas

PROFESSIONAL EXPERIENCE

Engineer III 2022
Biodynamic Research Corporation
San Antonio, Texas

Engineer II 2019-Present
Biodynamic Research Corporation
San Antonio, Texas

Engineer 2017-2019
Biodynamic Research Corporation
San Antonio, Texas

Graduate Physics Mentor 2017-Present
Brainiac, LLC
San Antonio, Texas

Engineering Intern 2016-2017
Biodynamic Research Corporation
San Antonio, Texas

Research Assistant 2015-2016
Rochal Industries, LLC
San Antonio, Texas

Research Assistant 2013-2015
Vascular Biomechanics and Biofluids Research Laboratory
The University of Texas at San Antonio
San Antonio, Texas

Research Assistant 2015
Laboratory for Cardiovascular Bioengineering and Therapeutics
The University of Texas at Austin
Austin, Texas

Research Assistant 2014
Functional Neural Interface Laboratory
Case Western Reserve University
Cleveland, Ohio

CONTINUING EDUCATION

Crash Data Retrieval (CDR) Technician Course 2019
Collision Safety Institute Crash Data Retrieval Specialist
Castle Rock, Colorado

Remote Pilot-in-Command Certification 2019
Federal Aviation Association
Hallmark University
San Antonio, Texas

Forensic Video Analysis Workflow Training 2018
Irvine, California

Traffic Crash Reconstruction I & II 2018
Northwestern University Center for Public Safety
Evanston, Illinois

Predictive Modeling Using Logistic Regression 2018
SAS

MADYMO Introductory Training 2017
Livonia, Michigan

PROFESSIONAL REGISTRATIONS

Accredited Traffic Accident Reconstructionist (#3599) 2019-Present
The Accreditation Commission for Traffic Accident Reconstruction

PROFESSIONAL ACTIVITIES

Certificate of Participation 2018
FARO Laser Scanner
San Antonio, Texas

PROFESSIONAL AFFILIATIONS

Association for the Advancement of Automotive Medicine 2018-Present
SAE International 2018-Present
International Society of Air Safety Investigators 2017-Present
Biomedical Engineering Society 2013-2016
Society of Women Engineers 2013-2016
Society for the Advancement of Chicanos & Native Americans
in Science 2013-2016

HONORS AND AWARDS

Highest Honors and International Distinction in the Honors College 2016
College of Engineering Honors 2016
Maximizing Access to Research Careers-Undergraduate Student
Training for Academic Research (MARC-U*STAR) Trainee 2014-2016
1st Place Poster Award in Physics, Astronomy and Nanotechnology 2014
Case's Rising Engineers & Technological Entrepreneurs (CREATE)
Summer Research Fellowship 2014
Research Initiative for Scientific Enhancement (RISE) Trainee 2013-2014
Tau Beta Pi Engineering Honor Society 2013

PEER-REVIEWED JOURNAL PUBLICATIONS

Thirugnanasambandam, M., Simionescu, D.T., Escobar, P.G., Sprague, E., Goins, B., Clarke, G.D., Han, H.C., Amezcua, K.L., Adeyinka, O.R., Goergen, C.J. and Finol, E., 2018. The effect of pentagalloyl glucose on the wall mechanics and inflammatory activity of rat abdominal aortic aneurysms. *Journal of Biomechanical Engineering*, 140(8), p.084502.

SCIENTIFIC PRESENTATIONS & CONFERENCE PUBLICATIONS (PRESENTING AUTHORS UNDERLINED)

Wood, R., Watson, R., and Amezcua, K.L. “Using Scanning and Simulation Technology to Analyze Aviation Mishaps,” Proceedings of the *International Society of Air Safety Investigators 2017 Annual Seminar*, San Diego, CA, August 21-24, 2017.

Thirugnanasambandam, M., Simionescu, D., Sprague, E., Goins, B., Clarke, G.D., Han, H.-C., Amezcua, K.H., Adeyinka, O.R., and Finol, E.A., 2017, “Biomechanical and biological evaluation of elastin stabilization in rat abdominal aortic aneurysms using penta-galloyl glucose,” Proceedings of the *2017 Summer Biomechanics, Bioengineering and Biotransport Conference*, abstract SB3C2017-946, Tucson, AZ, June 21-25 {2 pages}.

Amezcua, K.L., Patnaik, S., Thirugnanasambandam, M., Reilly, M.A. and Finol, E.A., 2016, “Assessment of Material Properties of Thin Film Wound-Treatment Polymers,” Proceedings of the *2016 Summer Biomechanics, Bioengineering and Biotransport Conference*, abstract SB³C2016-1033, National Harbor, MD, June 29-July 2 {2 pages}.

Thirugnanasambandam, M., Simionescu, D., Sprague, E., Goins, B., Clarke, G.D., Han, H.-C., Amezcua, K.L., Adeyinka, O.R., and Finol, E.A., 2016, “Effect of penta-galloyl glucose on murine AAA: material parameter optimization and finite element implementation,” Proceedings of the *2016 Summer Biomechanics, Bioengineering and Biotransport Conference*, abstract SB³C2016-791, National Harbor, MD, June 29-July 2 {2 pages}.

Amezcua, K-L. and Finol, E.A., 2014, “Towards Assessment of Biomechanical Parameters for Patient-Specific Abdominal Aortic Aneurysms” Proceedings of the *14th Annual Biomedical Research Conference for Minority Students*, San Antonio, Texas, November 10-13.