

Mr. Jacob Stegemann is a Mechanical Engineer and a Senior Consultant for Engineering Systems Inc. (ESi). Mr. Stegemann is a licenced Professional Engineer. He specializes in automotive accident investigation and reconstruction for recreational, commercial and passenger vehicles. He is also experienced in vehicle and biomechanical instrumentation, imaging and interpreting event data recorders, scene documentation, 3D laser scanning and drone photography/mapping.

Mr. Stegemann has extensive experience in the inspections of vehicles, buildings, accident sites and fire scenes. He is experienced in generating 2D and 3D computer aided models and vehicle and pedestrian crash simulations.

## Education

BSME, Mechanical Engineering, University of Michigan, 2016

## Licenses & Certifications

- State of Michigan P.E. License No. 6201070428
- FAA UAS Remote Pilot

## Positions Held

### **Engineering Systems Inc., Ann Arbor, Michigan**

- Senior Consultant, 2024 – Present
- Senior Staff Consultant, 2023 – 2024
- Staff Consultant, 2020 – 2023
- Associate Consultant, 2016 – 2019
- Engineering Intern, 2016

### **RLE International, Ann Arbor, Michigan**

- Engineering Intern, 2015 – 2016

## Contact Information

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**ESi**

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Ann Arbor, MI 48108

## Areas of Specialization

- 3-Dimensional Modeling
- Artifact Handling
- Automotive Accident Investigation/Reconstruction
- Certified FARO Operator
- Data Acquisition & Data Analysis
- FAA Certified sUAS Pilot
- Imaging & Analyzing Event Data Recorders for Light & Heavy Vehicles
- Mechanical & Biomechanical Testing

### **Fiat Chrysler Automobiles, Detroit, Michigan**

- Engineering Intern, 2015

### **Germain Honda of Ann Arbor, Ann Arbor, Michigan**

- Service Department Porter, 2013 – 2014

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### **Continuing Education**

- **Hyundai-Kia & Tesla EDR Tools Technician** – Institute of Police Technology and Management (IPTM), University of North Florida, Aurora, IL, 2025
- **Passenger Restraint Safety Systems** – Institute of Police Technology and Management (IPTM), University of North Florida, Aurora, IL, 2025
- **Building Vehicles** -Certificate of Training, VCrash Academy, 2025
- **DroneU sUAS Flight and 3D Photogrammetry Training** – DroneU, Loveland, CO, 2024
- **Bendix Brake School Training** – Certificate of Virtual Training, Bendix, 2024
- **Accessing and Interpreting Heavy Vehicle Event Data Recorders** – Certificate of Achievement, SAE International, SAE Accident Reconstruction Certificate Program, Required Course, Fontana, CA, 2023
- **Event Data Recorder Update and Analysis** – Ruth Consulting, Atlanta, GA, 2023
- **Accident Reconstruction, The Autonomous Vehicle and ADAS** – Certificate of Achievement, SAE International, 2022
- **Bosch© CDR Tool Technician Training by IPTM** -Online Institute of Police Technology and Management, University of North Florida, 2022
- **Applying Automotive EDR Data to Traffic Crash Reconstruction** – Certificate of Achievement, SAE International, 2021
- **Traffic Signal Timing Records Interpretation and Analysis** – Traffic Signal Academy, University of Tennessee, 2020
- **HVE Forum** – Certificate of Completion, Engineering Dynamics Corporation, Austin, TX, 2020
- **Sunbelt Rentals, Aerial Work Platforms** – Certificate of Training, Ypsilanti, MI, 2019
- **Traffic Crash Reconstruction I** – Northwestern University for Public Safety, Ann Arbor, MI 2019

- **Applied Vehicle Dynamics Course** – Autobahn Country Club, Joliet, IL, 2018
- **Photogrammetry and Analysis of Digital Media** – SAE International, Certificate of Achievement, Troy, MI, 2018
- **FARO Focus 3D Operator** – Certificate of Training, Ann Arbor, MI, 2018
- **Human Factors in Traffic Crash Reconstruction** – Institute of Police Technology Management, University of North Florida, Fort Myers, FL, 2017
- **Vehicular Crash Reconstruction Methods Seminar** – SAE International, Certificate of Achievement, Timron Scientific Consulting, Inc., Troy, MI, May 2016

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## Professional Affiliations/Honors

### Society of Automotive Engineers (SAE)

- Member

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## Publications

“Sensitivity Analysis of Virtual Crash Simulation Software Using Design of Experiments (DOE),” J.M Roberts, N.E. Civitanova, **J.A. Stegemann**, D.A. Buzdygon, and K.R. Thobe, SAE International, SAE Technical Paper, 2025-01-8693, doi:10.4271/2025-01-8693, 2025.

“Inclusion of Tire Forces into Low-Speed Bumper-to-Bumper Crash Reconstruction Simulation Models,” R.M. Brach, **J.A. Stegemann**, E.J. Manuel, and N.E. Civitanova, SAE International, 2024-01-2479, April 9, 2024.

“The Kinematic Analysis of Occupant Excursions and Accelerations During Staged Low Speed Far-Side Lateral Vehicle-to-Vehicle Impacts,” P.A. Shibata, J.M. Roberts, J.K. Sprague, A.E. Light, **J.A. Stegemann**, M. Meza-Arroyo, and S.P. Capser, SAE Technical Paper 2019-01-1030, 2019.

“Analysis of an Unexpected Impact to the Crown of the Head,” P.A. Shibata, A.L. Stern, J.M. Roberts, and **J.A. Stegemann**, Proceedings of The XXVIIth Annual International Occupational Ergonomics and Safety Conference, Chicago, IL, pp. 126-131, June 9-10, 2016.

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## Presentations

“CPSC All-Terrain Vehicle Research, Technical Review Consumer Product Safety Commission Presentation, June 2019.