



**ROBERT T. LYNCH, P.E.**

Sr. Collision Reconstruction Engineer

**EDUCATION:**

Penn State University, University Park, PA, Post-Baccalaureate Credit Certificate Program in Human Factors Engineering and Ergonomics, 2018  
University of Virginia, Charlottesville, VA, MS Mechanical Engineering, 2007  
Franklin & Marshall College, Lancaster, PA, BA Physics, 2005  
Franklin & Marshall College, Lancaster, PA, BA Mathematics, 2005

**CONTINUING EDUCATION:**

Event Data Recorder Use In Traffic Crash Reconstruction – Update, Abington, PA, February 2019  
Human Factors, NJAAR, May 2017, Branchburg, NJ  
Event Data Recorder Use in Traffic Crash Reconstruction – Update, Abington PA, October 2016  
Accessing and Interpreting Heavy Vehicle Event Data Recorders, SAE International, May 2016  
Roadway Signal & Design Applications for Crash Investigation, NATARI, June 2015  
Heavy Vehicle Crash Reconstruction, Northwestern Univ. Center for Public Safety, May 2012  
Pedestrian and Bicycle Accident Investigation, NATARI, October 2011  
Digital Photography for Accident Investigation, NATARI, October 2011  
CDR Analysis and Applications Update Course, Crash Data Specialists LLC, September, 2011  
CDR Technician and Data Analyst Certification Training, Collision Safety Institute, June 2010  
Traffic Crash Reconstruction, University of North Florida Institute of Police Technology and Management, January 2010

**PROFESSIONAL LICENSES AND CERTIFICATIONS:**

Licensed Professional Engineer in Virginia  
Traffic Accident Reconstructionist (ACTAR #2261)  
Licensed Remote Pilot, Small Unmanned Aircraft System (Drone)

**PROFESSIONAL MEMBERSHIPS:**

American Academy of Forensic Sciences (AAFS)  
Human Factors and Ergonomics Society (HFES)  
Illumination Engineering Society (IES)  
National Society of Professional Engineers (NSPE)  
Pennsylvania Society of Professional Engineers (PSPE)  
Society of Automotive Engineers (SAE)  
National Association of Subrogation Professionals (NASP)  
National Association of Professional Accident Reconstruction Specialists (NAPARS)  
National Association of Traffic Accident Reconstructionists and Investigators (NATARI)

## EXPERIENCE:

**August 2016 – Present**

**Sr. Reconstruction Engineer - DJS Associates, Inc., Abington, PA.** Consulting Engineer in the areas of collision reconstruction, pedestrian collisions, nighttime visibility analysis, heavy vehicle reconstruction and Crash Data Retrieval (CDR). Use of 3D laser scanning technology, electronic surveying equipment, digital photography and videography to investigate and document sites and vehicles. Services rendered on behalf of both defendant and plaintiff in civil and criminal matters. Services are rendered throughout the United States.

**August 2007 – August 2016**

**Mechanical Engineer - ARCCA, Inc., Penns Park, PA**

Consulting Engineer in the areas of collision reconstruction, visibility issues, product safety, and human protection and crashworthiness systems. Recorded, processed, and analyzed test data for various dynamic and quasi-static tests. Scanned vehicles and sites using 3D laser scanning equipment, processed point cloud data, and created animations for use as trial exhibits.

**August 2005 – August 2007**

**Graduate Research Assistant – University of Virginia, Charlottesville, VA**

Explored neuronal connections in biological organisms to assess the effects of decreased motor function and to identify potential improvements in physical rehabilitation techniques for humans. Created both mechanical and computer models of the swimming motion of the medicinal leech to simulate the effect of various neuronal deficiencies.

**January 2005 – May 2005**

**Robotics Team Leader – Franklin & Marshall College, Lancaster PA**

Organized a committee of professors, administrators, and engineering professionals to establish and promote the F&M Robotics program. Led a team of college students from multiple science disciplines to design, create and control a prototype autonomous computer-controlled robot to extinguish fires in hazardous areas.

**May 2004 – December 2004**

**Industrial Engineer – Stoner Incorporated**

Evaluated engineering processes using LEAN manufacturing principles (modeled after the Toyota Production System) to cut waste and improve efficiency. Created and implemented protocols to optimize raw materials restocking procedures. Fabricated, tested and installed pneumatic safety equipment on manufacturing lines.

## **PRESENTATIONS:**

- “Reconstructing Nighttime Collisions”, National Association Subrogation Professionals Webinar, June 2018
- “Drones: Capturing Data for Reconstruction”, 5<sup>th</sup> Annual Claims Symposium, Harrisburg, PA, May 2018
- “Reconstructing Vehicle Collisions and Other Events Using New World Technology”, National Association Subrogation Professionals, Austin, TX, November 2017
- “Using the Monte Carlo Method for a Crush Analysis”, 2017 Joint Annual Conference hosted by NATARI, Glassboro, NJ, August 2017
- “Accuracy of the DriveCam Event Data Recorder”, 2017 Joint Annual Conference hosted by NATARI, Glassboro, NJ, August 2017
- “Black Box Technology: Automobiles, Busses, Trucks & Trains”, 2017 NJAJ Boardwalk Seminar, Atlantic City, NJ, April 2017
- “Engineering Technology Update”, Pennsylvania Bar Institute, Philadelphia, PA, October 2016
- “Scene and Vehicle Investigation and Documentation”, Advanced Disposal, Carlisle, PA, September 2016

## **PUBLICATIONS:**

- Lynch, R.T., McDonough, D.M. and Keon, T. (2012) An Update to the Dynamic Response Index (DRI) Model for Use in Assessing Seat Performance in Military Ground Vehicles, SAFE Symposium, 2012
- Lynch, R. T., Modeling the Leech Swim System: Sensory Feedback and Stability Analysis, University of Virginia, 2007