DJS associates
Forensic Consulting, Technology & Animations

ROBERT T. LYNCH, P.E.
Principal 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

Recent Kia / Hyundai / Genesis ADAS/EDR Research, NAPARS, July 2026

The Blackbox and Beyond: An Exploration of Motorcycle Data Sources, Lightpoint Learning, August 2025

2024 Joint Annual Conference hosted by NATARI, October 2024

Statistics for Crash Investigation, NAPARS, November 2023

Human Factors in Accident Reconstruction, NAPARS, April 2023

Aerial Photogrammetry for Crash Reconstruction, NAPARS, March 2023

Crash Reconstruction Equations and Derivations, NAPARS, December 2022

Vehicle Spin Analysis, NAPARS, November 2022

Event Data Recorder Use in Traffic Crash Reconstruction – Update, Abington, PA, November 2022

Event Data Recorder Use in Traffic Crash Reconstruction – Update, Abington, PA, February 2019

Human Factors, NJAAR, Branchburg, NJ, May 2017

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

NOT RETAINED

PROFESSIONAL LICENSES AND CERTIFICATIONS

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

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 Professional Accident Reconstruction Specialists (NAPARS)
National Association of Traffic Accident Reconstructionists and Investigators (NATARI)

EXPERIENCE

August 2016 – Present
Principal Collision 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.

NOT RELEASED

May 2004 – December 2004 | Industrial Engineer – Stoner Incorporated, Lancaster, PA
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

"Low Speed, High Stakes: Reconstructing 'Fender-Benders,'" Delaware Valley Chapter of IASIU Monthly Chapter Meeting, Plymouth Meeting, PA, September 2026

"Low Speed, High Stakes: Reconstructing 'Fender-Benders,'" Guard Insurance, Conshohocken, PA, June 2026

"Discussion of CMV Regulations & Reconstruction," Progressive Commercial Claims Meeting, Somerset, NJ, June 2026

"Utilizing New Vehicle Technology to Reconstruct Collisions," W. R. Berkley Corporation, Greenwich, CT, May 2026

"Acquisition & Application of Hidden Digital Evidence," PA Insurance Fraud Prevention Authority Conference, Pocono Manor, PA, April 2026

"First Expert Direct and Cross, and Shadow Jury Impressions," Magna Legal Services: Battle of the Experts, Panelist, Miami, FL, December 2025

"Practical Forensic Engineering," Dispute Resolution Institute: Personal Injury Practicum, Philadelphia, PA, November 2025

"Low Speed, High Stakes: Reconstructing 'Fender-Benders,'" Webinar, Abington, PA, October 2025

"Utilizing New Vehicle Technology to Reconstruct Collisions," Prominent Law Firm, Philadelphia, PA, October 2025

"Utilizing New Vehicle Technology to Reconstruct Collisions," Prominent Law Firm, Webinar, Abington, PA, February 2025

"Digital Forensics for Auto Insurance Investigations," Montgomery County Paralegals Association, Webinar, Abington, PA, February 2025

"Digital Forensics for Auto Insurance Investigations," PA IFPA Pennsylvania Insurance Fraud Conference, Hershey, PA, April 2024

"Utilizing New Vehicle Technology to Reconstruct Collisions," National Association of Subrogation Professionals (NASP) Spring Conference, Hershey, PA, March 2024

"Digital Forensics for Auto Insurance Investigations," International Association of Special Investigation Units (IASIU) Delaware Valley Chapter and Pennsylvania Auto Crime Investigators Association (PACIA), Joint Meeting, Philadelphia, PA, December 2023

"Nighttime Reconstruction," Webinar, Abington, PA, December 2023

"Better Than Testimony: Trying the Trucking Case with Digital and Other Objective Evidence to Tell Your Best Story," DRI Trucking Law Seminar – The Future of Trucking Litigation: Smarter, Faster, Better, Austin, TX, April 2022

"The Forensic Engineering Analysis of Surveillance Video," Seminar, Bedford, PA, April 2022

"The Forensic Engineering Analysis of Surveillance Video," Webinar, Abington, PA, December 2021

NOT RETAINED

"Electronic Data for Investigations," Carolina Casualty, Jacksonville, FL, December 2021

"Energy-Based Crush Analysis to Determine Delta-V," New Jersey Association of Accident Reconstructionists, (NJAAR), Webinar, Abington, PA, July 2021

"The Fantastic Four," Webinar, Liberty Mutual, Abington, PA, May 2021

"Reconstructing Nighttime Collisions: What Makes Them Different," Webinar, Abington, PA, February 2021

"Evidence Preservation, Documentation & 3D Analysis," Hudson Insurance Webinar, Abington, PA, January 2021

"Reconstructing Nighttime Collisions: What Makes Them Different," Webinar, Abington, PA, November 2020

"Reconstructing Nighttime Collisions: What Makes Them Different," Webinar, Abington, PA, September 2020

"Reconstructing Nighttime Collisions: What Makes Them Different," Prominent New Jersey Law Firm, Lawrenceville, NJ, February 2020

"Reconstructing Nighttime Collisions: What Makes Them Different," Montgomery Bar Association, Norristown, PA, December 2019

"Reconstructing Nighttime Collisions: What Makes Them Different," Prominent Law Firm, Huntingdon Valley, PA, November 2019

"Surveillance & Videogrammetry Analysis for Collision Reconstruction," Montgomery Bar Association Delaware Valley Legal Expo 2019, King of Prussia, PA, November 2019

"The Forensic Engineering Analysis of Surveillance Video: Real-World Examples," National Defense Industrial Association's Regional Conference, Memphis, TN, September 2019

"Reconstructing Nighttime Collisions: What Makes Them Different," PURE Insurance, White Plains, NY, August 2019

"Technology as Applied to the Investigation and Reconstruction of Vehicle Collision – The Newest Data Collection and Analysis Tools," Prominent Law Firm, King of Prussia, PA, July 2019

"The Forensic Engineering Analysis of Surveillance Video: A Real-World Example," 6th Annual Claims Symposium, Harrisburg, PA, May 2019

"The Investigation of a Vehicle Collision: An Interactive Seminar Where YOU Take Part in the Investigation," Forensic Storage & Technology Center, Southampton, PA, May 2019

"The Forensic Engineering Analysis of Surveillance Video: A Real-World Example," Dispute Resolution Institute, Philadelphia, PA, April 2019

"Reconstructing Nighttime Collisions," National Association Subrogation Professionals (NASP) Webinar, June 2018

"Drones: Capturing Data for Reconstruction," 5th Annual Claims Symposium, Harrisburg, PA, May 2018

"Reconstructing Vehicle Collisions and Other Events Using New World Technology," National Association Subrogation Professionals (NASP) Annual Conference, 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, Buses, Trucks & Trains," New Jersey Association for Justice (NJAJ) Boardwalk Seminar, Atlantic City, NJ, April 2017

NOT RETAINED

"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

NOT RETAINED

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