

Gary Michael Johnson, MS PE DFE ACTAR

Technical Resume

Contact Information:

gjohnson@vearexperts.com

Company	VEAR, Inc.
Work Phone	205-307-6543
Cell Phone	205-427-1150

Education:

Ph.D. studies, Interdisciplinary Engineering – Computational Engineering, University of Alabama at Birmingham 2013-2016

Master of Science in Mechanical Engineering, University of Alabama at Birmingham, Dec 2008

Bachelor of Arts, Criminal Justice – Law Enforcement, Auburn University, March 1995

Montgomery Police Academy, Montgomery, AL, Honor Graduate, Dec 1994

US Naval Nuclear Prototype Training, Balston Spa, NY, Oct 1986

US Naval Nuclear Power School, Orlando, FL, Feb 1986

Machinist Mate “A” School, Great Lakes, IL, April 1985

Dothan Vocational Center, Machine Shop, Dothan, AL, June 1984

Professional Registration:

Registered Professional Engineer, State of Alabama #36717

Full Accreditation as a Traffic Accident Reconstructionist awarded by the Governing Board of Directors of the Accreditation Commission for Traffic Accident Reconstruction (ACTAR), Registration No. 1181 (Exp. date January, 2021)

FAA UAS Remote Pilot Certificate number 3950265

Training in Human Subjects Protection, Virginia Tech, October 2016

Bosch Crash Data Retrieval System Analyst

Membership in Professional Societies:

National Society of Professional Engineers

Alabama Society of Professional Engineers

National Academy of Forensic Engineers (Senior Member)

Society of Automotive Engineers

American Society of Mechanical Engineers

National Association of Professional Accident Reconstructionists

Member, Alabama Police Trainers’ Association

Phi Eta Sigma, Auburn University Chapter, Freshman Honor Society

Additional Training - Accident Reconstruction & Event Data Recorder (EDR) Courses and Conferences:

1. Pix4D User Workshop, Atlanta, GA, July 2017
2. Accessing and Interpreting Heavy Vehicle Event Data Recorders, Appleton, WI, May 2017.
3. Human Factors in Crash Reconstruction, Oklahoma City, OK, October 2016.
4. World Reconstruction Exposition (WREX) 2016, Orlando, FL, May 2016.
5. Crash Data Retrieval Summit, Houston, TX, January 2016.
6. Crash Data Retrieval Summit, Houston, TX, January 2015.
7. Crash Data Retrieval Technician Course Instructor Update, Houston, TX, January 2014.
8. Crash Data Retrieval Summit, Houston, TX, January 2014.
9. Faro Focus 3D Training Class, Birmingham, AL, December 2013.
10. 3D Forensic Seminar 2013, Cartersville, GA, November 2013.
11. South Carolina Association of Reconstruction Specialists (SCARS) 2013 Conference, Charleston, SC, July 2013.
12. South Carolina Association of Reconstruction Specialists (SCARS) 2012 Conference, Charleston, SC, July 2012.
13. Crash Data Retrieval Technician Course Instructor Update, Houston, TX, January 2012.
14. Crash Data Retrieval Summit, Houston, TX, January 2012.
15. South Carolina Association of Reconstruction Specialists (SCARS) 2011 Conference, Charleston, SC, July 2011.
16. Crash Data Retrieval Summit, Houston, TX, January 2011.
17. Accessing and Interpreting Heavy Vehicle Event Data Recorders, Norwalk, CA, December, 2010.
18. South Carolina Association of Reconstruction Specialists (SCARS) 2010 Conference, Charleston, SC, July 2010.
19. Crash Data Retrieval Technician Course Instructor Update, Houston, TX, January 2010.
20. Crash Data Retrieval Summit, Houston, TX, January 2010.
21. Accident Reconstruction Network – Collision Safety Institute Crash Conference Las Vegas, NV, June 2009.
22. Basic Digital SLR (Single Lens Reflex) Photography, Samford University, Birmingham, AL, March 2009.
23. Crash Data Retrieval User's Conference, Houston, TX, January 2009.
24. Accident Reconstruction Network – Collision Safety Institute Crash Conference Las Vegas, NV, June 2007.
25. Crash Data Retrieval User's Conference, Houston, TX, January 2007.
26. 40-hour Commercial Vehicle Course, Augusta, ME, May 2006.

27. Crash Data Retrieval Technician Course Instructor, Dallas, TX, February 2006.
28. Crash Data Retrieval User's Conference, Dallas, TX, February 2006.
29. S-Cam Air Brake/Commercial Vehicle/ECM Data Extraction and Analysis Course Using Rec-Tec software, Orlando, FL, January 2006.
30. Caterpillar Electronic Technician, Thompson Caterpillar, Birmingham, AL, September 2005.
31. Damage & Energy Applications for Collision Reconstruction ("Crush") Course, Collision Safety Institute Phoenix, AZ, July 2005.
32. Accident Reconstruction Network – Collision Safety Institute Crash Conference Las Vegas, NV, June 2005.
33. Crash Data Retrieval System Update Course, Las Vegas, NV, June 2005.
34. Underride Investigation and Speed Analysis (pick-up trucks), Midwest Institute for Transportation Safety, Indianapolis, IN, October 2004.
35. South Carolina Association of Reconstruction Specialists (SCARS)/ Southeastern Accident Reconstruction Society (SeARS) Combined Conference, Biloxi, MS, July 2004.
36. Underride Investigation and Speed Analysis, Midwest Institute for Transportation Safety, Indianapolis, IN, July 2004.
37. Society of Automotive Engineers (SAE) Highway Vehicle Event Data Recorder Symposium, NTSB Academy, Ashburn, VA, June 2004.
38. Detroit Diesel Electronic Control/Data Extraction and Analysis, Detroit Diesel Corporation, Detroit, MI, April 2004.
39. Sokkia 40 hour Forensic Mapping Training Course, McKinney Police Department, McKinney, TX, April 2004.
40. South Carolina Association of Reconstruction Specialists (SCARS) 2003 Conference, Charleston, SC, July 2003.
41. Collision Safety Institute, Crash Data Retrieval Tool User Certification Course, (Ford updates), Louisiana State Police Academy, Baton Rouge, LA, June 2003.
42. Southeastern Accident Reconstruction Society (SeARS) 2002 Conference, Orange Beach, AL, August 2002.
43. Special Problems in Traffic Crash Reconstruction, Institute of Police Technology and Management, University of North Florida, Jacksonville, FL, April 2002.
44. Crash Data Retrieval Tool User Certification Course, Institute of Police Technology and Management, University of North Florida, Jacksonville, FL, February 2002.
45. Acceleration and VC2000PC Training, Vericom Computers, Inc., Mississippi Law Enforcement Training Academy, Pearl, MS, July 2001.
46. South Carolina Association of Reconstruction Specialists (SCARS) 2001 Conference, Myrtle Beach, SC, March 2001.
47. World Reconstruction Exhibition 2000, Texas A&M University, College Station, TX, September 2000.
48. Survey GPS/TPS Seminar, Earl Dudley and Associates, & Leica, Birmingham, AL, August 2000
49. Crash Data Retrieval System Technician Certification, Vetronix Corporation, Santa

Barbara, CA, June 2000.

50. Special Problems in Traffic Crash Reconstruction, Institute of Police Technology and Management, University of North Florida, Jacksonville, FL, May 2000.
51. Advanced Traffic Crash Investigation, Institute of Police Technology and Management, Gulf Coast Community College, Panama City, FL, February 2000.
52. Speed Analysis for Traffic Accident Investigation, R.W. Rivers, Institute of Police Technology and Management, University of North Florida, Jacksonville, FL, February 2000.
53. Operation of the Leica Total Station Laser Surveying Instrument, Jeff Hannah, Earl Dudley & Associates, Birmingham, AL, July 1999.
54. Autosketch v5.0, Auburn Police Department, Corporal Carl Wilcox – Department Accident Reconstructionist, November 1997.
55. Mental Preparation for Armed Confrontations, Jim Crotty, US Customs Academy, June 1996 (at length discussions on reaction times).
56. Highway Response Driving (a.k.a. “Pursuit School”), Alabama State Trooper Academy, Selma, AL, May 1996.
57. At Scene Traffic Accident Investigation, Montgomery Police Academy, Montgomery, AL, October 1994.
58. Motorcycle Safety, Motorcycle Safety Foundation, April 1987.
59. Motorcycle Safety, Motorcycle Safety Foundation, June 1980.

Professional Experience:

Managing Engineer, Vista Engineering Accident Reconstruction (VEAR), July 2008 to Present
Reconstructionist, Office Manager, Robinson and Associates LLC, July 1999-July 2008.

Patrol Officer, City of Auburn, AL Police Department, July 1994-November 1999. Three letters of commendation from the Patrol Division shift supervisor and one letter of commendation from the Narcotics Division supervisor.

Security Shift Supervisor, East Alabama Medical Center, Opelika, AL June 1991 - July 1994.

Military Service:

US Navy, November 1984 – October 1990. Job Title: Submarine Nuclear Propulsion Plant Operator – Mechanical: Engine room Supervisor, Ship’s Machinist, Division Training Petty Officer, Quality Assurance Inspector for Nuclear Level I, and Sub-Safe Systems registration number 726B-062, USS Ohio, SSBN 726 Blue. Conducted 7 strategic deterrent patrols. Awarded the Navy Achievement Medal from the Secretary of the Navy, Good Conduct Medal, letter of commendation from the Commander of the Pacific Submarine Fleet. Honorably discharged.

Publications:

1. “Preserving Heavy Truck Event Data,” Collision Vol. 6, No. 1, 2011.
2. “Reading Data From International Medium and Heavy Duty Truck Electronic Control Modules,” Collision Vol. 5, No. 2, pp 33-37, 2010.

3. "Honda Goldwing Motorcycle: Linked Brakes and Their Performance," Collision Vol. 4, No. 2, pp 46-52, 2009.
4. "Signal Processing Applied to Vehicle Speed Measurement and Recording," Collision Vol. 4, No. 1, pp 26-30, 2009.
5. "Seventeen Motorcycle Crash Tests into Vehicles and a Barrier." Co-authored with Kelley Adamson, et al. SAE Technical Paper 2002-01-0551. Presented at the SAE 2002 World Congress, Detroit, Michigan, March 4-7, 2002.
6. Assisted with "Derivation of Closing Speed as a Function of Dissipated Energy," E.L. Robinson (Paper No. 2000-01-1318) Accident Reconstruction; Analysis. Simulation and Visualization, Society of Automotive Engineers SP-1491, 527-536 (2000).

Technical Papers Reviewed for Publication:

1. "Study on Correlation of Commercial Vehicle Axle Response with Road Profile for ISO Road Class Categorization and Durability Analysis," Sathish Kumar Prasad, Dayalan P, Ramya Balasubramanian, Ashok Leyland Ltd. To be presented at WCX™ 18: SAE World Congress Experience - Load Simulation and Vehicle Performance: Tire and Terrain.
2. "A Cooperative Driving NLMPC (Non Linear Model Predictive Control) For Real Time Collision Avoidance," Braghin Francesco, Edoardo Sabbioni, Rosolia Ugo, Department of Mechanical Engineering, Politecnico di Milano, Milano, Italy. Presented at the ASME 2015 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference, Boston, Massachusetts, August, 2015.
3. "GPS Device Comparison for Accident Reconstruction," Roger Bortolin, James Hrycay, Jeffrey Golden. SAE Technical Paper 12B-0372. Presented at the SAE 2012 World Congress, Detroit, Michigan.
4. "The Accuracy of Diagnostic Event Data in Bendix Antilock Brake System Electronic Control Units," Timothy P. Austin, Benjamin N. Smith, Michael J. Farrell. SAE Technical Paper 12B-0053. Presented at the SAE 2012 World Congress, Detroit, Michigan.
5. "Data Extraction Methods and Their Effect on the Retention of Event Data Contained in the Electronic Control Modules of Detroit Diesel and Mercedes-Benz Engines," David Plant, Timothy Austin, and Benjamin Smith. SAE Technical Paper 2011-01-0808. Presented at the SAE 2011 World Congress, Detroit, Michigan, April 12, 2011.

Presentations:

1. "Applied Physics and Vehicular Crash Reconstruction," Physics Department, Samford University, Birmingham, Alabama, October, 2017.
2. "Vehicular Accident Reconstruction trends, Technologies and the Need for continued Reliance on Physical Principles," University of Alabama at Birmingham Physics Department Colloquium, Birmingham, Alabama, October 2015.
3. "Accident Reconstructions Trends and Technology Updates", at Troy University in Dothan, Alabama, October 2014.
4. "A Review of "Safety Evaluation of Red-Light Cameras"", University of Alabama at Birmingham Engineering Graduate School, Birmingham, Alabama, October 2014.
5. "A Review of "Synthesis of the Median U-Turn Intersection Treatment, Safety, and Operational Benefits" and Its Application to Highway 280 in Birmingham," University of Alabama at Birmingham Engineering Graduate School, Birmingham, AL, April 2014.

6. "Automotive Event Data Recorders," University of Alabama at Birmingham Engineering Graduate School, Birmingham, AL, November 2013.
7. "After the Accident," Truckload Carriers Association Safety & Security Division Annual Meeting, Indianapolis, IN, May 2013.
8. "Calculating Closing Speed from Roof Crush in Semi-trailer Side Underride Crashes," South Carolina Association of Reconstruction Specialists (SCARS) 2012 Conference, Charleston, SC, July 2012.
9. "Preserving Heavy Truck ECM Data," Crash Data Retrieval Users Conference, Houston, TX, January 2011.
10. "Heavy Truck Accident Reconstruction: Legislative Update, and Event Data Recorder Update," Alabama Bar Association Continuing Legal Education, Birmingham, AL, December 2010.
11. "Accessing and Reading International Truck Heavy and Medium Duty Electronic Control Units." Presented at the class: Accessing and Interpreting Heavy Vehicle Event Data Recorders, Norwalk, CA, December, 2010.
12. "Black Box Download in Automobile Cases," Birmingham Bar Association Continuing Legal Education, Birmingham, AL, March 2010. Co presented with Jay Hogan and Ben Hogan.
13. "The Use of Black Box Data Recorders in Automotive Litigation," Alabama Bar Association Continuing Legal Education, Birmingham, AL, December 2009.
14. "Signal Processing Applied to Vehicle Speed Measurement and Recording," Crash Data Retrieval Users Conference, Houston, TX, January 2009.
15. "Crashworthiness Simulation in LS-DYNA," University of Alabama at Birmingham Engineering Graduate School, Birmingham, AL, November 2008.
16. "Event Data Recorders – What's in *Your* Car?" University of Alabama at Birmingham Engineering Graduate School, Birmingham, AL, December 2006.
17. "Introduction to Vehicular Accident Reconstruction," Physics Department, Samford University, Birmingham, AL, November 2004

Military Course Completions:

1. Primary Valve Team Trainer, August 1990
2. Radioactive Spill Team Training, July 1990
3. Reactor Control Equipment, June 1990
4. Primary Valve Team Trainer, January 1990
5. Machinery Equipment Refresher Lab, January 1990
6. Radioactive Spill Team Training, January 1990
7. Machinery Equipment Refresher Lab, November 1989
8. Reactor Control Equipment, June 1989
9. Radioactive Spill Team Training, November 1988
10. Primary Valve Team Trainer, November 1988
11. Shipboard Gage Calibration Training, June 1988
12. Submarine Force Quality Assurance Inspector, June 1988
13. Submarine Damage Control, May 1988

14. Radioactive Spill Team Training, May 1988
15. 3k Gpd Electric Distilling Plant Combined Maintenance, December 1987
16. Machinery Equipment Refresher Lab, December 1987
17. Prop Shaft, May 1987
18. Submarine Repair Parts Petty Officer Indoctrination, May 1987
19. Trident Woodward Electrical Governor Type 2301 Maintenance, May 1987
20. Oxygen Brazing Cutter, May 1987
21. Trident Steam Components Combined Maintenance, April 1987
22. Primary System Valve Operation, April 1987
23. 12k Gpd Steam Evaporator Plant Combined Maintenance, April 1987
24. Nuclear Propulsion Plant Operator Mechanical, September 1986
25. Nuclear Power Fundamentals, January 1986
26. Machinist's Mate Class A1 (1200 psi), April 1985
27. Propulsion Engineering Basics, Class AP, February 1985
28. Service School Command Indoctrination, January 1985