

Stephen C. Showalter
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CURRICULUM VITAE

SUMMARY

Stephen Showalter began Showalter Collision Analysis & Reconstruction LLC in 2015, bringing public service expertise to the private sector. As of 2016, Stephen works exclusively with Steve Harbinson of Collision Analysis & Reconstruction LLC.

Stephen Showalter is a retired police officer from the City of Lynnwood, located in Snohomish County, Washington. He was an officer for over twenty years with seventeen years assigned to the traffic section. Stephen became the lead investigator or reviewer of all major collisions in the city and investigated over 3,000 collisions in the performance of his official duties. Investigations ranged from minor parking lot disagreements to vehicular homicide criminal cases. Duties included detailed scene and vehicle examinations, gathering of physical evidence, photography, documentation with drone and total station, diagramming, witness and suspect interviews, day and nighttime visibility studies, time-distance analyses, crash data retrieval (CDR) analyses, seatbelts, lightbulbs, traffic signals, occupant kinematics analyses, expert witness testimony, and collision reconstruction. Stephen was also assigned a police motorcycle to enforce rules of the road violations.

Stephen Showalter has over 1,500 training hours specific to collision investigation and is an accredited collision reconstructionist, ACTAR #2374.

ACADEMIC BACKGROUND

SEATTLE UNIVERSITY – Seattle, WA

Master of Public Administration – 2009

UNIVERSITY OF WASHINGTON – Seattle, WA

Bachelor of Arts in Economics – 1989

BELLEVUE COMMUNITY COLLEGE – Bellevue, WA

Associate of Arts in Administration of Criminal Justice – 1992

NORTH SEATTLE COMMUNITY COLLEGE – Seattle, WA

Emergency Medical Technician (certificate) – 1993

HIGHLINE COMMUNITY COLLEGE – Des Moines, WA

Reserve Police Officer Academy (certificate) – 1997

WASHINGTON STATE CRIMINAL JUSTICE TRAINING CENTER – Burien, WA

Basic Police Academy – 1999

PROFESSIONAL EXPERIENCE

COLLISION ANALYSIS & RECONSTRUCTION LLC

Associate – 2016 to present

SHOWALTER COLLISION ANALYSIS & RECONSTRUCTION LLC

Principal – 2015 to present

LYNNWOOD POLICE DEPARTMENT

Traffic Officer – 2003 to 2019

Patrol Officer – 1999 to 2003

Reserve Police Officer – 1998 to 1999

WOODWAY POLICE DEPARTMENT

Patrol Officer – 2003 to 2005 (contract city)

MEMBERSHIP

WASHINGTON ASSOCIATION OF TECHNICAL ACCIDENT INVESTIGATORS

WATAI Member – 2009 to present

ACCREDITATION COMMISSION FOR TRAFFIC ACCIDENT RECONSTRUCTION

ACTAR Accredited Traffic Accident Reconstructionist #2374 – 2011 to present

EDMONDS SCHOOL DISTRICT TRANSPORTATION SAFETY ADVISORY COMMITTEE

Member – 2014

LYNNWOOD POLICE GUILD

Treasurer – 2015 to 2019

NATIONAL ASSOCIATION OF FIELD TRAINING OFFICERS – WASHINGTON CHAPTER

Treasurer – 2016 to 2019

NATIONAL ASSOCIATION OF PROFESSIONAL ACCIDENT RECONSTRUCTION SPECIALISTS

NAPARS Member – 2016 to present

FEDERAL AVIATION ADMINISTRATION

sUAV Remote Pilot certificate #4208196 – 2018 to present

SAE INTERNATIONAL

SAE Associate Member – 2022 to present

COLLISION INVESTIGATION TRAINING

BASIC TRAFFIC COLLISION INVESTIGATION

Washington State Criminal Justice Training Commission (CJTC) – Lynnwood, WA
2001 – 40 hours

ADVANCED TRAFFIC COLLISION INVESTIGATION

CJTC – Lynnwood, WA – 2002 – 80 hours

TECHNICAL TRAFFIC COLLISION INVESTIGATION

CJTC – Kent, WA – 2004 – 120 hours

MOTORCYCLE ACCIDENT INVESTIGATION

University of North Florida, Institute of Police Technology and Management (IPTM)
Bellevue, WA – 2005 – 40 hours

ACCELERATION AND VERICOM FAMILIARIZATION PRESENTATION

Vericom Computers – Fort Lewis, WA – 2006 – 16 hours

TOTAL STATION CRIME SCENE MAPPING

CJTC – Everett, WA – 2006 – 40 hours

CRASH ZONE – CRASH/CRIME SCENE COMPUTER AIDED DIAGRAMMING

IPTM – Portland, OR – 2007 – 40 hours

COLLISION INVESTIGATION RECONSTRUCTION

Washington State Patrol Academy – Shelton, WA – 2007 – 141 hours

CRASH ZONE – ADVANCED

Ron Sanders, CARS – Renton, WA – 2009 – 16 hours

WATAI 2009 FALL CONFERENCE – Burien, WA

STAGED COLLISIONS PRESENTATION

Rusty Haight, Collision Safety Institute – 10 hours

VECTOR DIAGRAMMING USING MOMENTUM

Greg Russell, Accident Analysis & Reconstruction – 6 hours

CRUSH ENERGY ANALYSIS

Greg Russell, Accident Analysis & Reconstruction – Everett, WA – 2010 – 40 hours

COLLISION RECONSTRUCTION UPDATE

Greg Russell, Accident Analysis & Reconstruction – Redmond, WA – 2010 – 40 hours

WATAI 2010 FALL CONFERENCE – Renton, WA

CRASH RECONSTRUCTION AT TRAFFIC SIGNAL INTERSECTIONS

Daren E. Marceau, P.E., Forensic Traffic Specialists – 24 hours

WATAI 2011 SPRING CONFERENCE – Redmond, WA

UNIQUE ASPECTS OF CAR/POLE COLLISIONS

Joseph N. Cofone – 4 hours

AUTOMOTIVE GLASS CODING / LOW SPEED IMPACTS / HID LAMP INSPECTIONS

Dr. Kenneth Zion – 3 hours

WATAI 2012 SPRING CONFERENCE – Burien, WA

HYBRID AND NEW VEHICLE TECHNOLOGY FOR FIRST RESPONDERS

Matt Stroud, MGS Tech Innovation Technologies – 8 hours

PEDESTRIAN RECONSTRUCTION INVESTIGATION

Greg Russell, Accident Analysis & Reconstruction – Bellevue, WA – 2013 – 40 hours

WATAI 2013 SPRING CONFERENCE – Seattle, WA

HEAVY TRUCK COLLISION RECONSTRUCTION REFRESHER AND ECM DATA UPDATE

Ron Heusser, EA², and Greg Wilcoxson, WSP – 8 hours

WATAI 2013 FALL CONFERENCE – Bellevue, WA

ADVANCED RECONSTRUCTION CONCEPTS

Greg Russell, Accident Analysis & Reconstruction – 24 hours

PHOTOGRAMMETRY PRESENTATION

iWitness – Snohomish County Sheriff's Office – Everett, WA – 2013 – 4 hours

FORENSIC 3D LASER SCANNING SEMINAR

The PPI Group – Seattle, WA – 2013 – 6 hours

WATAI 2014 SPRING CONFERENCE – Bellevue, WA

LOW SPEED IMPACT ANALYSIS AND TESTING – Robert Stearns – 8 hours

INJURY CAUSATION IN LOW SPEED IMPACTS – Dr. Rick Robertson – 8 hours

WATAI 2014 FALL CONFERENCE – Seattle, WA

STAGED COLLISIONS PRESENTATION – Crash Data Specialists – 12 hours

DATA RETRIEVAL (CDR) SYSTEM OPERATORS/ANALYSIS AND APPLICATIONS UPDATE

Crash Data Specialists – 16 hours

THE INFLUENTIAL WITNESS – Robert Sterns – 4 hours

WATAI 2015 SPRING CONFERENCE – Burien, WA

CRASH RECONSTRUCTION AT TRAFFIC SIGNAL INTERSECTIONS

Daren E. Marceau, P.E., Forensic Traffic Specialists – 16 hours

WREX 2016: WORLD RECONSTRUCTION EXPOSITION – Orlando, FL

DRIVER RESPONSE DEPENDS UPON INFORMATION CONTENT

Dr. Jeffrey Muttart, Crash Safety Research – 1.5 hours

INVESTIGATION OF EMERGENCY VEHICLE CRASHES

Chris Daly, Drive to Survive.org – 1.75 hours

ESTIMATING PASSENGER CAR PERFORMANCE – USING LIMITED VEHICLE DATA TO ESTIMATE TIME/DISTANCE/SPEED RELATIONSHIPS FOR ACCELERATING CARS AND MOTORCYCLES

Wade Bartlett, PE, Mechanical Forensics Engineering Services – 1.75 hours

VIDEO ANALYSIS OF TRAFFIC COLLISIONS

Adam Cybanski, Gyro Flight and Safety Analysis – 1.75 hours

SPEEDOMETER AND COLLISION RECONSTRUCTION

Christopher Goddard, Collision Science – 1.75 hours

VEHICLE ROLLOVER CRASH TESTING APPLIED TO ACCIDENT RECONSTRUCTION

Don Stevens, Safety Engineering and Forensic Analysis – 1.75 hours

DIGITAL FORENSICS & HEAVY VEHICLE POST CRASH INSPECTIONS FOR COLLISION RECONSTRUCTIONIST

Scott Skinner, Collision Consulting – 1.75 hours

HEAVY VEHICLE RECONSTRUCTION

Dave Stopper, Stopper & Associates – 1.75 hours

PEDESTRIAN COLLISIONS

Mike Reade, Forensic Reconstruction Specialists – 1.75 hours

MOTORCYCLE COLLISION RECONSTRUCTION

Louis Peck, MSME; Dial Engineering, Lightpoint – 1.75 hours

VISUAL AMODAL PERCEPTION

Dr. Rick Wakefield, International Healthcare Consulting – 1.75 hours

TAR WITH MS EXCEL

Greg Russell, Accident Analysis & Reconstruction – 1.75 hours

CRASH DATA RETRIEVAL UPDATE

Rick Ruth, Ruth Consulting – 1.75 hours

CRASH TESTING OF TRACTOR/TRAILERS, CARS, SUV'S, AND MOTORCYCLES

et al. – 8 hours

WATAI 2016 SPRING CONFERENCE – Burien, WA

ACCELERATION CALCULATIONS WITH LIMITED DATA

FRICITION AND BRAKING

CRITICAL SPEED YAW

SIDESWIPES AND SPEED RATION

CMV BRAKING

SENSITIVITY & MONTE CARLO

MODERN EDR CASE STUDY

Wade Bartlett, Mechanical Forensics Engineering Services – 16 hours

CRASH DATA RETRIEVAL TECHNICIAN LEVEL 1 & 2

Ron Sanders, Collision Safety Institute – Seattle, WA – 2016 – 16 hours

WATAI 2016 FALL CONFERENCE – Burien, WA

WHAT TO LOOK FOR IN A SIMULATION (PC CRASH SOFTWARE INTRODUCTION)

John Hunter – 8 hours

WREX 2016 REVIEW – WATAI Board – 8 hours

2017 HVE FORUM – New Orleans, LA

Simulation Fundamentals

3D Editor Functionality, Friction Zones & Importing Models

Simulation Movies

Building a Vehicle for HVE & HVE-2D

Engineering Dynamics Corporation – 34 hours

WATAI 2017 SPRING CONFERENCE – Burien, WA

Expert Witness – Amy Friedheim – King County Prosecutor and King County Superior Court Judge Williams – 6 hours

Collision Studies – WATAI member – 6 hours

EVENT DATA RECORDER USE IN TRAFFIC CRASH RECONSTRUCTION – LEVEL 1

IPTM – Rick Ruth, Ruth Consulting – Burien, WA – 2017 – 40 hours

2018 HVE FORUM – Charleston, SC

Advanced HVE-2D

Theoretical and Applied Vehicle Dynamics

Engineering Dynamics Corporation – 34 hours

WATAI 2018 SPRING CONFERENCE – Burien, WA

Forensic Video Analysis – Andrew Fredericks, Forensic Video Solutions – 6 hours

CRUSH ENERGY ANALYSIS

Greg Russell, Accident Analysis & Reconstruction – Burien, WA – 2018 – 40 hours

WATAI 2018 FALL CONFERENCE – Seattle, WA

Crash Tests and Analysis Review & Crash Data Review – Brad Muir, Crash Data Specialists, and Greg Russell, Accident Analysis & Reconstruction – 24 hours

DARTDRONES

Part 107 Drone License Test Prep with pilot and mapping training – Lynnwood, WA
2018 – 32 hours

Pix4D

Pix4D (photogrammetry software) – Lynnwood, WA – 2018 – 16 hours

2019 HVE FORUM – Las Vegas, NV

Engineering Dynamics Corporation – Advanced HVE-2D – 34 hours

WATAI 2019 SPRING CONFERENCE – Burien, WA

Non-Traditional Approaches Linear Momentum Collisions

Det. Aaron Parker, Seattle PD – 6 hours

USING PIX4D IN COLLISION INVESTIGATION

Greg Russell, Accident Analysis & Reconstruction – Renton, WA – 2019 – 40 hours

HEAVY VEHICLE EVENT DATA RECORDER USE IN TRAFFIC CRASH INVESTIGATION ANALYST TRAINING

Jim Loftis and Scott Skinner, Forensic Training Group – Meridian, ID – 2020 – 32 hours

2020 JOINT CONFERENCE – NAPARS – Virtual Conference

Motorcycles - Turning and Swerving – Wade Bartlett – 2 hours

Rollovers – John Daily – 2 hours

GoPro GPS Analysis – Greg Russell – 2 hours

Perception Response Times for Various Crash Types – Dr. Jeff Muttart – 2 hours

Chip-level Data Recovery – Matthew DiSogra, Delta V – 2 hours

Tires – T.J. Tennent – 2 hours

Using New Freightliner Cascadia Data in Accident Reconstruction – Wes Grimes, Dave Plant, and Greg Wilcoxson – 2 hours

TEXAS ASSOCIATION OF ACCIDENT RECONSTRUCTION SPECIALISTS – Virtual Conference – 2020

Nighttime Accidents – Applied Human Factors Concepts for A/R

Jeff Suway, JS Forensics Consulting – 15 hours

2021 HVE FORUM – Virtual Conference

Engineering Dynamics Corporation – Advanced HVE – 32 hours

CLICK 3D PHOTOGRAMMETRY (3DF Zephyr)

Eugene Liscio, Ai2-3D Forensics – via Zoom – 2021 – 7 hours

CLOUDCOMPARE

Eugene Liscio, Ai2-3D Forensics – via Zoom – 2021 – 7 hours

WATAI 2021 FALL CONFERENCE – Virtual Conference

Identification and Application of Human Factors and Visibility Issues in Traffic Collision Reconstruction – Bill Messerschmidt, Jeff Suway, Jim Sobek, John Lloyd, Swaroop Dinakar, and Lou Peck – 20 hours

HEAVY VEHICLE FORENSIC MECHANICAL INSPECTION FOR COLLISION INVESTIGATORS

Northwestern University Center for Public Safety – Chattanooga, TN – Bill Foche and Michael Muller – 2021 – 40 hours

PIX4D USE IN COLLISION RECONSTRUCTION

Forensic Mapping Solutions – via Zoom – Mark DiCocco – 2021 – 16 hours

WATAI 2022 SPRING CONFERENCE – Virtual Conference

Advanced Reconstruction with EDR Applications

Using Excel in Traffic Collision Reconstruction

Greg Russell, Accident Analysis & Reconstruction – 16 hours

WATAI 2022 FALL CONFERENCE – Virtual Conference

Crash Reconstruction at Traffic Signal Intersections

Current Topics in Traffic Engineering for Crash Reconstruction

Daren E. Marceau, P.E., Forensic Traffic Specialists – 16 hours

2022 JOINT CONFERENCE – NAPARS – Virtual Conference

Research & Information Sources – Wade Bartlett – 2 hours

Momentum Review – Greg Russell – 2 hours

Heavy Vehicle Bendix Pro Software Application – Tommy Sturdivan – 2 hours

Vehicle Dynamics – Adam Hyde – 2 hours

Event Data Recorder Update

Andrew Rich, Rich Consulting – NAPARS – via Zoom – 2023 – 2 hours

RECON-3D

Eugene Liscio, Ai2-3D Forensics – via Zoom – 2023 – 4 hours

COMMERCIAL VEHICLE DATA SYSTEMS MASTER SERIES

Forensic Training Group – Pleasant View, TN – 2023 – 24 hours

AERIAL PHOTOGRAMMETRY FOR CRASH RECONSTRUCTION

Andrew Klane, Forensic Mapping Solutions – NAPARS – via Zoom – 2023 – 2 hours

HUMAN FACTORS

Dr. Susan Lantz – NAPARS – via Zoom – 2023 – 2 hours

WREX 2023: WORLD RECONSTRUCTION EXPOSITION – Orlando, FL

A HISTORICAL PERSPECTIVE ON TECHNOLOGY IN RECON

Wade Bartlett – 1.5 hours

THE FUTURE OF RECON: DATA DRIVEN

Louis Peck – 1.5 hours

COMMERCIAL VEHICLE COLLISION MITIGATION SYSTEMS

Tim Cheek, David Plant, Wesley Grimes – 2 hours

THE IMPORTANCE OF TIRES IN ACCIDENT INVESTIGATION

T. J. Tennant – 4 hours

EDR ACCURACY OF MODERN VEHICLES

Rick Ruth – 2 hours

ACCESSING TOYOTA EVENT/CAMERA DATA THROUGH TECH STREAM SOFTWARE

Brad Muir, Nick Manz – 2 hours

HEAVY TRUCK SIDE AND REAR UNDERRIDE SPEED ANALYSIS

Scott Skinner – 2 hours

THE USE OF MOBILE DEVICE LIDAR IN COLLISION RECONSTRUCTION

Eugene Liscio – 2 hours

HEAVY VEHICLE EDR UPDATE

Brad Higgins – 2 hours

PASSENGER VEHICLE / LIGHT DUTY TRUCK EDR UPDATE

Rick Ruth – 2 hours

CRASH TESTING OF TRACTOR/TRAILERS, CARS, SUV'S, AND MOTORCYCLES

et al. – 7 hours

COLLISION RECONSTRUCTION MIDWAY DAY

et al. – 6 hours

CRASH DATA - REVIEW OF CRASH DAY

et al. – 2 hours

ACCESSING AND INTERPRETING HEAVY VEHICLE EVENT DATA RECORDERS

SAE International – C1022 – Appleton, WI – 2023 – 30 hours

ADVANCED APPLICATIONS OF HEAVY VEHICLE EDR DATA

SAE International – C1901 – Appleton, WI – 2023 – 16 hours

SAE INTERNATIONAL'S ACCIDENT RECONSTRUCTION DIGITAL SUMMIT

ONE FLASH IS GREAT; TWO (OR MORE) CAN BE BETTER – Tom Vadnais

APPROACH TO DRONE MAPPING FOR ACCIDENT RECONSTRUCTION – Clare Grimes

EDR IN THE ADAS WORLD – Marc Paradiso

USEFULNESS OF CHATGPT FOR ACCIDENT RECONSTRUCTION PROBLEMS – Jarrod Carter

HOW ADAS AND DASHCAMS IMPACT ACCIDENT RECONSTRUCTION – John Steiner

AN UPDATE ON ADAS TESTING & RESEARCH – Shawn Harrington

AUTOMATED TRAFFIC SIGNAL PERFORMANCE MEASURES – Alan Asay

LEGAL ISSUES IN ACCIDENT RECONSTRUCTION – Jennifer Dukarski

SPHERICAL PANORAMAS FOR CRASH SCENE/SITE DOCUMENTATION – Jarrod Carter

2024 – 7 hours

DETERMINING VEHICLE SPEED FROM AN AUDIO RECORDING

Alan Moore, A.B. Moore Forensic Engineering – NAPARS – via Zoom – 2024 – 2 hours

HEAVY TRUCK COLLISION RECONSTRUCTION TECHNIQUES

Forensic Training Group – Bend, OR – 2024 – 40 hours

SYMPOSIUM ON EDR RESEARCH AND TRAINING

CDR TOPICS – Brad Muir

TOYOTA GTS AND TECHSTREAM – Brad Muir

EDR CASE STUDY – Greg Russell

ACCURACY OF EDR'S – Rick Ruth

ACCESSING TOYOTA EVENT AND IMAGE DATA – Nick Manz

EDR ANALYSIST EQUATIONS – Andrew Rich

CDR - WHAT'S NEW – Brad Muir

PRECRASH DATA – Michael Weyde

GM SYSTEMS WITH EDRs – Don Floyd – General Motors

ASCM / FCM – CDR DATA APPLICATION – Tommy Beetham – General Motors

CDR REPOWERING UPDATE – Kent Boots

BERLA VEHICLE SYSTEM FORENSICS – Wes Vandiver

MOTORCYCLE AIRBAG PPE – Andre Doria

MOTORCYCLE EDRs – Ed Fatzinger

NEW AND EVOLVING HVEDRs – Brad Higgins

HVEDR ISSUES – Greg Wilcoxson

SPEED SENSORS – Matt DiSogra – Delta V

HVEDR DATA – Wes Grimes and Dave Plant - Mecanica

PACCAR – DETROIT DIESEL DATA – James Loftis and Steve Anderson

NAPARS – Oklahoma City, OK – 2024 – 40 hours

OTHER RELEVANT TRAINING

BAC (BLOOD ALCOHOL CONTENT)

CJTC – Burién, WA – 1999 – 16 hours (plus multiple recertifications)

SPEED MEASURING DEVICE – RADAR

CJTC – Lynnwood, WA – 2000 – 8 hours

DWI DETECTION AND STANDARDIZED FIELD SOBRIETY TESTING

CJTC – Lynnwood, WA – 2002 – 24 hours

SPEED MEASURING DEVICE – LIDAR

CJTC – WSP, Bellevue, WA – 2003 – 4 hours

REID TECHNIQUE OF INTERVIEWING AND INTERROGATION

John E. Reid & Associates – Seattle, WA – 2004 – 24 hours

BASIC POLICE PHOTOGRAPHY

CJTC – Edmonds, WA – 2005 – 40 hours

PHOTO TRAFFIC SAFETY & ENFORCEMENT SOLUTIONS

American Traffic Solutions – Lynnwood, WA – 2006 – 8 hours

PURSUIT INTERVENTION TECHNIQUE (PIT)

CJTC – Lynnwood, WA – 2007– 4 hours (plus multiple recertifications)

2008 WASHINGTON TRAFFIC SAFETY COMMISSION CONFERENCE

Washington Traffic Safety Commission – Bellevue, WA – 16 hours

WASHINGTON TRAFFIC SAFETY COMMISSION SEMINAR – Burien, WA

LETHAL WEAPON – VEHICULAR HOMICIDE AND VEHICULAR ASSAULT – 2011 – 16 hours

ADVANCED ROADSIDE IMPAIRED DRIVING ENFORCEMENT (ARIDE)

Washington State Patrol, Impaired Driving Section, Drug Evaluation and Classification Program – Lynnwood, WA – 2018 – 16 hours

POLICE MOTORCYCLE

Motorcycle Safety Foundation – Tacoma, WA – 2002 – 15 hours

Basic Police Motor Operator Course – Bellevue PD – Bellevue, WA – 2003 – 80 hours

Quarterly qualifications – Lynnwood PD – 2003 to 2019 – 5 to 10+ hours per quarter

Advanced Police Motorcycle Training – WSP, Shelton, WA – 2003 to 2019

24 to 32 hours annually

North American Motor Officers Association – 2008, 2010, 2012, 2016 – 32 hours each