CURRICULUM VITAE

Nishan Perera, B.A.Sc., P.Eng., CFVA

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EXPERT SUMMARY

Nishan Perera is the Practice Lead for the Digital Media Analysis group and a Senior Associate with the Collision Reconstruction team at 30 Forensic Engineering and a registered professional engineer in Ontario, holding a Bachelor of Applied Science degree in Mechanical Engineering with a focus on Automotive Engineering. He is also a Certified Forensic Video Analyst (CFVA) through the Law Enforcement & Emergency Services Video Association (LEVA) and is specialized in the forensic video analysis of CCTV, cell phone, and dashboard camera footage. He has been qualified in the fields of Collision Reconstruction and Forensic Video Analysis in both civil and criminal court. In addition, Nishan's aptitude extends into the application of photogrammetric techniques to extract measurements and locations of objects from photographs. He has been involved in conducting vehicle examinations and extracting 'Black Box' Data, as well as the investigation of over 700 cases comprising collision reconstruction and digital media related investigations.

SPECIALIZED PROFESSIONAL COMPETENCIES

- Collision Reconstruction of commercial and passenger vehicles, motorcycles & pedestrian impacts
- Vehicle mechanical fitness assessments
- Event Data Recorder (black box) data retrieval and analysis
- Collision simulation and animation
- Photogrammetry, Object Tracking, and Match Moving
- Forensic Video Analysis of Dash Camera, Cell phone and Security Camera Footage
- Collision site assessments
- Visibility assessments
- Product development and Computer Aided Design

ACADEMIC BACKGROUND

Bachelor of Science, Honours, Mechanical /Automotive Engineering, University of Windsor, Windsor, Ontario, 2008

ADDITIONAL COURSES AND TRAINING

- Audio Authentication for Forensic Casework, National Centre for Media Forensics, University of Colorado Denver, April 13-16, 2026, Online
- LEVA Video Analysis in Collision Reconstruction, March 23 – 27, 2026, Online
- LEVA 35th Annual Symposium, October 28 – November 1, Indianapolis
- Video Analysis Using PC-Crash 15.0, September 17, 2024, Online
- Amped FIVE: Forensic Image and Video Enhancement Training, March 4 – 8, 2024, Online
- LEVA Level 4: Advanced Forensic Video Analysis and the Law, Law Enforcement & Emergency Services Video Association (LEVA), January 16 – 20, 2023, Online
- LEVA Level 3: Principles of Forensic Video/Image Compare & Contrast, Law Enforcement & Emergency Services Video Association (LEVA), August 15 – 19, 2022, Online
- LEVA Level 2: Digital Multimedia Evidence Processing, Law Enforcement & Emergency Services Video Association (LEVA), May 2 – 6, 2022, Toronto Police Headquarters
- LEVA Level 1: Forensic Video Analysis and the Law, Law Enforcement & Emergency Services Video Association (LEVA), January 17 – 21, 2022, Toronto Police College
- iNPUT-ACE Certified Metrologist, November 18, 2021
- Adobe Photoshop for Forensic Video Analysis, Law Enforcement & Emergency Services Video Association (LEVA), August 2021
- 2021 Video Evidence Training Symposium Certificate
- iNPUT-ACE Certified Examiner, October 23, 2020
- iNPUT-ACE Reverse Projection: Camera Match Overlay Course, October 6, 2020
- iNPUT-ACE Certified Operator, August 13, 2020
- Tesla & Toyota Techstream Course, Ontario Provincial Police Headquarters, Orillia, Ontario, December 2019
- Racelogic Webinar Training Session, VBOX Automotive Data Logging, June 2019
- 24-hour Crash Data Retrieval (CDR) Analysis and Applications Course for Engineers, Crash Data Specialists LLC, Toronto, February 2019
- Crash Test Team Member, CATAIR AGM and Conference, Ontario Police College, Aylmer, Ontario, August 2018
- PC-Crash 11.1 Two Day Workshop, MEA, Toronto, June 2018
- CATAIR Crash Data Retrieval (CDR) Operator's Course, Whitby, Ontario, 2018
- Passenger and Commercial Vehicle Tires Seminar, Bridgestone Americas Tire Operations, Toronto, June 2017
- Ontario Police College Crash Testing, Aylmer, April 2017
- Advanced Traffic Crash Investigation, IPTM
- Traffic Crash/Traffic Homicide Investigation, IPTM
- Crash Investigation I, Northwestern University

- Safety, Compliance and Liability Conference, AEM
- Scissor Lift Technical Service Training, SkyJack Inc.
- IPAF Aerial Work Platform Training, Skyjack Inc.
- ILR Advanced Driver Training, ILR Car Control School

PROFESSIONAL EXPERIENCE

30 Forensic Engineering

Practice Lead—Digital Media Analysis
March 2025 – Present, Toronto, ON

- Conduct investigations relevant to Digital Media Analysis, including but not limited to the acquisition, authentication and analysis of image and video evidence, photogrammetric calculations for height/position assessments, speed calculations and evidence location and conduct independent camera frame rate testing.
- Conduct clarification of images and video to aid in compare and contrast assessments for the determination of vehicles/subjects/object, footage synchronizations and development of courtroom demonstratives.
- Authentication and clarification of digital audio files.

Senior Associate—Collision Reconstruction
March 2022 – Present, Toronto, ON

- Conduct technical investigations involving commercial, passenger and recreational vehicle collision reconstruction, defects in vehicle components and mechanical equipment, failures involving engineering factors, and human factors related to vehicle collisions
- Conduct forensic video analysis for the purposes of clarifying video, determining vehicle speeds or determining object locations through single view reverse projection metrology.

Associate—Collision Reconstruction
October 2016 – March 2022

Skyjack Inc.

Senior Product Safety Engineer
March 2015 – October 2016

- Investigated root cause failure of oscillating axle cylinders and mitigated risk of future litigation
- Investigated and resolved root cause failure of keeper pins
- Conducted multiple injury related incident investigations & machine inspections
- Developed warnings, labels and technical document design methodology
- Assisted in peer review for ANSI A92.20 & CSA B354.7
- Authored manufacturer approvals, Safety Bulletins & regularly fielded safety related customer inquiries
- Participated in mock deposition

Hitachi Construction Truck Mfg.

Manufacturing Analyst—Tooling Design
November 2011 – March 2015

- Designed and validated stands, lifting devices and custom tooling
- Conducted stress calculations for device and load rated safety compliance
- Investigated and resolved tooling damage occurrences relating to work cell processes
- Investigated and resolved bolt failures on robot tooling
- Developed complex models, layouts and tool use procedures

Designer
October 2008 – November 2011

- Increased manufacturability and reduced cost of truck bed wear liners
- Evaluated suspension kinematics for interference with prototype mud guards
- Developed mechanical prototype emergency ladder for mining trucks
- Authored noise and fuel study testing procedures
- Designed and developed shipping configurations and conducted packaging studies for rail transportation

PROFESSIONAL SOCIETIES AND ASSOCIATIONS

- Ontario Forensic Video Analyst Association (OFVAA), Member
- Law Enforcement and Emergency Services Video Association (LEVA), Associate Member and Certified Forensic Video Analyst
- National Association of Professional Accident Reconstruction Specialists (NAPARS), Member
- Society of Automotive Engineers (SAE), Member
- Licensed Professional Engineer in Ontario (PEO), Member

PUBLICATIONS AND SPEAKING ENGAGEMENTS

Publications

- Perera, N., Griffiths, H., & Prentice, G. (2025). Validation of SynthEyes for use in Collision Reconstruction (No. 2025-01-8688). SAE Technical Paper.

Teaching Engagements

- Photogrammetry 1: PhotoModeler and SynthEyes for Forensic Video Analysis, Law Enforcement & Emergency Services Video Association (LEVA), December 2024 - current, Instructor
- Video Analysis in Collision Reconstruction, New York Statewide Traffic Accident Reconstruction Society (NYSTARS), Full Day Spring Seminar, Poughkeepsie, New York, April 2025
- “Collision Reconstruction: Forensic Video Analysis”, Guest Lecturer, University of Toronto, Faculty of Applied Science and Engineering, Toronto, ON, March 2022 – Present

Speaking Engagements

- "Digital Media Analysis – Maximizing Photograph & Video Evidence for Litigation," McCague Borlack LLP, Toronto, Ontario, July 2025
- "Unmasking Digital Deception – A guide to navigating and combating emerging digital threats," Aviva Verify Summit, Markham, Ontario, May 2024
- "Introduction to Photogrammetry for Video Analysts," LEVA 35th Annual Symposium, Indianapolis, October 2024.
- "Using Video Evidence Effectively in Traffic Collision Cases," Shultz Law Group, ON, October 2024
- "Verdict Through Video: A Guide to Navigating Video Evidence and Experts," Howie Sacks & Henry LLP, ON, June 2024
- "Artificial Intelligence for Litigators: AI in Action," Online Expert Panelist, The Advocates' Society, April 2024
- "The Eyes of Justice: Maximizing the impact of video evidence in litigation," Howie Sacks & Henry LLP, ON, April 2024
- "State-of-the-art Investigations: Using new technology to uncover the truth," Co-operators Insurance, ON, November 2023
- "From Pixels to Perception: How video evidence can shape reality", Vancouver, BC., Calgary, AL., Ottawa and Toronto, ON, Various Dates May – June 2023
- "30 Forensics Engineering Webinar: Perception versus Reality – The Use and Limitations of Video Evidence," Gore Mutual Insurance, ON, February 2022
- "30 Forensic Engineering Webinar: The Digital Witness – The Use and Limitations of Photo and Video Evidence," Toronto, ON, July 2021
- "30 Forensic Engineering Webinar: Collision Reconstruction Assessments of Suspected Fraudulent Claims," Toronto, ON, May 2020
- "30 Forensic Engineering Webinar: Suspected Fraudulent Claims," TD Insurance – Special Investigation Unit, Toronto, ON, February 2020
- "Engaging with Forensic Experts," Dutton Brock LLP, Toronto ON, January 2020

COURT APPEARANCES

- Qualified as an Expert Witness in Collision Reconstruction and Forensic Video Analysis for the Ontario Court of Justice, Toronto, May 2025
- Qualified as an Expert Witness in Collision Reconstruction for the Superior Court of Justice Toronto, October 2024
- Qualified as an Expert Witness in Collision Reconstruction and Forensic Video Analysis for the Superior Court of Justice Toronto, April 2024
- Qualified as an Expert Witness in Collision Reconstruction for the Superior Court of Justice Oshawa, May 2023
- Qualified as an Expert Witness in Collision Reconstruction for the License Appeals Tribunal (LAT) Ontario, February 2023