Pamela Oakes

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Professional Summary

ASE Master Certified Automotive Expert with over 35 years of hands-on experience in vehicle repair, diagnostics, electrical systems, ADAS calibration/recalibration and sensor development, HVAC (including BEV/HEV heat pumps), engine repair, steering gear-suspension, and shop operations. Recognized Subject Matter Expert (SME) by ASE for developing L4 (ADAS) original test, A7 (HVAC) updated test, and A1 (Engine Repair) updated test certification exams. Active SAE International contributor on ADAS Sensor Calibration Task Force; ICAR ADAS recognized. Provides reliable, defensible opinions on vehicle defects, mechanical/electrical failures, ADAS sensor/calibration issues, improper repair practices, educational deficiencies causing component failures, accident causation, and post-collision investigations. Experienced in translating complex technical concepts into clear, jury-accessible explanations. Available for plaintiff and defense consulting, vehicle inspections, failure analysis, report preparation, depositions, and trial testimony in automotive-related litigation (product liability, personal injury, negligence).

More recently: Independently conceived, designed, and developed a nine-application suite; forensic software tools based on data requested by attorneys and insurance professionals. Applications compute Delta-V, crash energy, friction coefficients, time-to-collision, ADAS sensor degradation, EDR data interpretation, visibility analysis, and comparative fault allocation - generating litigation-ready reports from physics-based interactive calculators; patent pending.

Areas of Expertise

- Advanced Driver Assistance Systems (ADAS): Calibration, sensor failures, alignment integration, post-accident recalibration, sensor development
- Automotive Electrical & Diagnostic Systems: Failure analysis, wiring, modules, hybrid/BEV de-energizing
- HVAC & Thermal Management: Systems in ICE, BEV/HEV/PHEV vehicles, heat pumps
- Engine Repair & Mechanical Failures: Diagnostics, causation in accidents/repairs
- Shop Practices & Training Deficiencies: Leading to component failures or improper repairs, business sale
- Vehicle Inspections & Failure Analysis: Post-collision, defects, repair negligence
- Accident-Related Automotive Issues: Mechanical/electrical causation, first-responder protocols
- Produced two patent (pending) SaaS elements forensic suite (9) for ADAS/non-ADAS vehicles, including: ADAS Fleet Stopping Distance, ADAS Drift & Alignment, Coefficient of Friction & Road Conditions, Comparative Fault Visualizer, Crash Energy & Speed analysis, Delta-V Impact Severity, EDR Data Interpreter, Time-to-Collision (TTC) Calculator inc. ADAS, and Visibility Line Calculator

inc. ADAS. One suite for attorneys/insurance, one suite for law enforcement/traffic, and one suite for dealership-independent repair shops and technicians.

Education & Certifications

- AS Electronic Engineering Technology, Edison College (Fort Myers, FL)
- AA English/General, Edison College
- University of Michigan – Dearborn (& Coursera-based Coursework: Python3, C++)

Certifications (Current/Active)

- ASE Master Automotive (A1–A8)
- ASE Advanced Level Technician L4 (Advanced Driver Assistance Systems/ADAS)
- ASE Medium/HD Truck (T7, T8)
- ASE Collision (B5)
- ASE C1, G1, P2, xEV1, xEV2
- ICAR PL3 ADAS
- EV (Emergency Vehicle)-M1 Certification
- EPA 609 Certification & Test Proctor
- EPA 608 Universal (Core, Types 1–3) & Test Proctor
- EU-F Gas Certification (European Union equivalent of EPA 609)
- CDL-Class B (through 2029) & Trainer
- FEMA National Incident Management System (IS-100.c, IS-700.b)
- US Passport

Professional Experience (Reverse Chronological; Condensed for Relevance)

DrivenEvidence / Automotive by George Inc. (formerly DIY Motor City LLC) – Tampa Bay, FL
SME Automotive Technical & Business Consultant / ADAS Specialist (2012–Present)

- ASE-selected SME for L4 (ADAS), A7 (HVAC), A1 (Engine Repair) exam development and industry standards
- SAE International Active Safety ADAS Sensor Calibration Task Force voting member/contributor
- Hands-on ADAS recalibration training/inspections using proprietary equipment
- Failure analysis and investigations into shop practices, educational gaps, and component failures (e.g., electrical, mechanical, ADAS)
- Expert witness and investigative services in automotive repair, mechanical/electrical applications, ADAS components
- Developed forensic-style training for first responders on hybrid de-energizing at accident scenes

Delphi-Phinia Technologies / TEXA-USA / Nissens/SMP / MACS / WorldPac / Others
Various (Contract) (2016–Present) Technical Educator & Content Developer—US/Canada

- Delivered nationwide training on ADAS alignment/calibration, HVAC/heat pumps, electrical systems
- Created content/modules emphasizing reliable diagnostic methods and failure prevention

Gas Cap Grip / Automotive Aids
Contract Developer-Designer

- Developed three automotive sensors (Class 1/Class 8); two design patents pending
- Secured one design patent (D849631S) with projected adoption across 240M vehicles
- Developed suite of nine-application automotive forensic software tools; two utility patents pending

Burke Porter Group-Ascential Technologies – Detroit/Grand Rapids, MI
ADAS Area Manager (Nov 2023–Apr 2024) / Fixed Operations Director (May–Oct 2024)

- Designed ADAS technician training/certification programs, standardized post-accident calibration criteria
- Implemented diagnostic tools (e.g., AllData Collision) and processes to improved efficiency/accuracy; vehicle count (3Q) ~20% improvement
- Reduced recalibration time and increased serviced vehicles across four of five BPG shops; recommended processes adopted for sale to/for Dealer Tire/Sentric locations.

Analog Devices, Inc (ADI) – Detroit-Boston
Contract ADAS Applications Engineer & Program Manager (2018)

- Directed (PM / applications engineer) Ford Motor Company collaboration on AI-based powertrain
- R&D and A2B integration

Prior Roles (*Summarized*)

- County of Hillsborough (FL) – Senior Training Specialist: Developed training program for 50+ technicians supporting 3,300-plus vehicle fleet (automotive/HD trucks); established 15 training modules on diagnostics, safety, EPA 609, and vendor systems
- Raytheon Information, Intelligence Services (IIS) – Contract Diesel Technical Trainer & Developer; one of five technical professionals to launch International A26 engine US/CAN
- Pam's Motor City Automotive & Tires, LLC – Start-up Owner/Technician (1995–2015): Built/operated ASE Blue Seal shop; 20-plus years profitable operations, high customer satisfaction. 17 regional consumer satisfaction awards, 2 national performance awards, other national awards
- Ogden Media Group | Suncoast Media Group – Reporter / Photographer, Editor (1982 – 1993) – multiple Florida Press Association (FPA) awards for content / writing
- Community Bank of Cape Coral (FL) – Board Member – (2004 -2006) -- Key role as start-up board member establishing-contributing to successful launch and early customer acquisition

Publications & Technical Writing (Selected; Relevant to Reliability/Acceptance)

- Book: The Silent Witness: How ADAS-Driven Data Exposes the Truth (2026)
- Book: AI/ML in Litigation Support: Expert Witness Discovery (2026)
- Book: Auto Repair Shop KPI Made Simple: Watching Your Pennies Grow into Dollars (2025)
- Other Books: Crash Course: Find Me Auto Help (2022), Find Me Auto Help (2020), Car Care for the Clueless series (1996–2015)
- Contributing writer: Motor Magazine (2021–present), Tire Business ADAS columnist, (2015–present), MACS ACtion Magazine (2020–2025), ABRN (2021-2024)
    - *Last six months (published-nationally):* "When ADAS Sensors Cannot See Through the Snow: Why Obstruction and Calibration Matter More Than You Think;" "Expanding Role of AI/ML in Automotive Autonomy: Standards, Liability and the Technician's Evolving Responsibilities;" ADAS/ADS Developments Magnify Technician Practices in the Bay;" "Best Practices for the Mom-and-Pop Shop: Run on Your Numbers, Not Someone Else's Shop Accounting;" "Built on Assumptions: When ADAS Trusts a Broken Undercar Platform;" "Every Repair Lives or Dies by Nine Critical Decisions;" "There's More to Reading Tire Tread Than Lincoln's Head;" "Loose Steering, Suspension Component Can Fool ADAS Calibration." "How Far Does ADAS 'See' Down the Road?"

Speaking Engagements & Presentations (Selected; Demonstrating Communication/Acceptance)

- ASE Conference panels (ADAS, HVAC, Engine Repair; 2022–2025)
- NACAT (Keynote), SAE Task Force, VISIONKC, MACS, ATE, ITEC, ASE, WB-CCC, (on ADAS, electrical, HVAC, repair methodology, business acumen 2015–2025)
- Various TV local / regional / national automotive news commentator, on-air personality (1996 to present; ongoing)

Professional Affiliations

- SAE International --Voting Member #6158552705 (2023–present)
    - Active Safety ADAS Sensor Calibration Task Force, voting member
    - Vehicle Dynamics Systems OBD Task Force, voting member
    - Active Safety and Driver Support Systems Standards Committee
- Hillsborough County Bar Association – Affiliate member (2026-present)
- Florida Bar Association – Affiliate member (2026-present)
- National Science Foundation/NCAT Advisory Committee ADAS/V2V (2023–present)
- SEMA – Member (2021 to present); Member (2002 – 2014; Pam's Motor City Automotive & Tires)
- FCDI/AMRoC Tampa Bay | Robotic Group -- Board Member (2020 to present)
- Mobile Air Climate Society (MACS) – Board Member (2024-2026) | Executive Board (2025–2026)

Selected Awards

- ASE Blue Seal Recognized Business (2016–present; 1998-2015 Pam's Motor City Automotive & Tires)
- NBC-Today Show "Next Big Thing" recognition (top 9 in US)
- HSN-Good Housekeeping's "Gold Seal" recognition (consumer auto tool-patent)
- SBDC-FGCU Southwest Florida's Distinguished Entrepreneur of the Year award 2013
- PBS-NPR / WGCU Southwest Florida Makers award
- Women's Board Car Care Council national awards (multiple)
- Tire Review "Top-Shop" Finalist (top 10 in US) national award
- Motor Age "Top-Shop" Finalist (top 10 in US) national award
- Rotary International Four-Way Test award

Patents

- USD849631S1 Gas Cap Grip (tool)
- US63988234 Driven Evidence-iQ (Vertical SaaS), provisional
- US50968077 ADAS2Alignment (Vertical SaaS), provisional

Litigation Experience

Provided expert consulting in 44 automotive-related matters over the past four years, focusing on ADAS sensor/calibration failures, mechanical/electrical defects, repair negligence, and accident causation. Work included vehicle inspections, failure investigations, diagnostics, report preparation, and opinion formulation for plaintiff and defense counsel. One deposition and one administrative hearing (sworn testimony) to date per FRCP 26 and Florida Rule 1.280; most matters resolved pre-deposition and/or pre-trial to date.