

Michael F. Carroll | Fire Investigator, CFEI

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Field Office: Livonia, MI 48150

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Professional Summary:

Mr. Carroll has twenty-six years' combined experience in the fire service and investigation field as a fire investigator, fire officer, and firefighter. Additionally, he has eight years of experience as both a police officer and a police investigator. Mr. Carroll has performed several hundred investigations in dwellings, commercial buildings, industrial installations, restaurants, and hotels. He has performed numerous different fire investigations in unique and challenging circumstances, including large dollar loss fires, vessel fires, vehicle fires, fatal fires, homicides, and abductions. He has qualified as an expert witness in fire origin & cause in both the 3rd Judicial Circuit of Michigan and the 36th District Court of Michigan. He has been the lead investigator in Federal criminal investigations, as well as cases involving the Racketeer Influenced and Corrupt Organizations Act (RICO) in partnership with the Federal Bureau of Investigation and the Bureau of Alcohol, Tobacco, & Firearms (Detroit). Mr. Carroll is a Certified Fire & Explosion Investigator, Certified Fire Service Instructor, Certified Fire Officer, and a licensed and certified police officer.

Licenses and Certifications:

Certified Fire & Explosion Investigator, National Association of Fire Investigators, #21382
Fire Investigator, National Board on Fire Service Professional Qualifications, #374944
Fire Service Instructor, State of Michigan Bureau of Fire Services
Live Fire Training Instructor, International Society of Fire Service Instructors
Fire Officer 1, 2, & 3, State of Michigan Bureau of Fire Services
Police Officer, Michigan Commission on Law Enforcement Standards, #46637
Youth Firesetter Intervention Specialist, National Fire Academy
Emergency Medical Technician, State of Michigan, #489900
Private Investigator, Michigan #3701207620
Professional Locksmith, 2025, Professional Locksmiths of America

Project Experience:

Confidential Client, Bloomington, IN Origin and Cause Investigation

Fire investigation involving a Kenworth W900L stored inside of a commercial structure. The fire was determined to be arson involving both the owner and tenant. The investigation led to both successful denial of the claim and arrest of the involved.

Confidential Client, Toledo, OH
Origin and Cause Investigation

Fire investigation involving a bar located in a strip mall. The investigation determined the fire to be arson involving the tenant. Investigation uncovered a criminal ring of insurance fraud in both Michigan and Ohio, leading to both successful denial of the claim and arrests.

Confidential Client, Brighton, MI
Origin and Cause Investigation

Fire investigation involving a commercial vehicle. Investigation revealed the fire to be the result of an improper repair. The investigation led to successful subrogation and monetary recovery from a vehicle dealership.

Court Qualifications/ Depositions:

Litigation CV available upon request.

Professional Experience:

EFI Global, Fire Investigator, 2022 – Present
Detroit Fire Department, Sergeant, 2004 - Present
Envista Forensics, Senior Consultant – Fire Investigator, 2019 - 2021
Detroit Police Fire / Arson Unit, Fire Investigator Lieutenant, 2014 – 2018
Detroit Fire Department, Fire Reporting Quality Control Team, 2017 – 2022
Oakland County Sheriff's Office, Deputy Sheriff, 2017 – 2022

Specialized Education:

Fire Scene Safety, Fire Rescue 1 Academy, 2026
Forensic Locksmith Training, American Center for Locksmith Training, 2025
Fire Origin & Cause Seminar, Oakland County Association of Arson and Fire Investigators, Inc., 2025
Fire Origin & Cause Seminar, Oakland County Association of Arson and Fire Investigators, Inc., 2024
Fire Behavior, Detroit Fire Department, Fire Rescue 1 Academy, 2024
Electric & Hybrid Vehicle Fires, Detroit Fire Department, Fire Rescue 1 Academy, 2024
Firefighter Search and Rescue, Detroit Fire Department, Fire Rescue 1 Academy, 2024
Vent-Enter-Isolate-Search Operations, Detroit Fire Department, Fire Rescue 1 Academy, 2024
Human Trafficking, Detroit Fire Department, Fire Rescue 1 Academy, 2024
Firefighter Survival, Detroit Fire Department, Fire Rescue 1 Academy, 2024
Fire Pre-Incident Planning, Detroit Fire Department, Fire Rescue 1 Academy, 2023
Fire Effects; Heat Effects, CFITrainer.net, IAAI, 2023
Fire Effects; Effects of Combustion By Products, CFITrainer.net, IAAI, 2023
Ignitable Liquid Canine Detection Teams, CFITrainer.net, IAAI, 2023
Building Construction, Detroit Fire Department, 2023
Disaster Response Fire Rescue 1 Academy, 2023
After Effects of Disaster Response, Fire Rescue 1 Academy
MSA Altair 4XR Gas Monitor Practical Training, Detroit Fire Department, 2023
Hazardous Materials Emergency Decontamination, Detroit Fire Department, 2023
Unusual & Large Building Fires, Detroit Fire Department, 2023

Commercial Building & Factory Fires, Detroit Fire Department, 2023
Evidence Photography, EFI Global, Inc.
Fire Origin & Cause Seminar, Oakland County Association of Arson and Fire Investigators, Inc., 2022
Alternative Fuel Vehicles, CFITrainer.net / IAAI, 2022
Charleston Sofa Super Store Fire, CFITrainer.net / IAAI, 2022
Electric & Hybrid Vehicle Design Basics, CFITrainer.net / IAAI, 2022
Electric & Hybrid Vehicle Fires, CFITrainer.net / IAAI, 2022
Emerging Technologies in Fire Investigation, CFITrainer.net / IAAI, 2022
Fundamentals of Building Construction, CFITrainer.net / IAAI, 2022
Introduction to Appliances, CFITrainer.net / IAAI, 2022
Introduction to Fire Dynamics & Modeling, CFITrainer.net / IAAI, 2022

Investigating Fatal Fires, CFITrainer.net / IAAI, 2022
Investigating Motor Vehicle Fires, CFITrainer.net / IAAI, 2022
Investigating Natural Gas Systems, CFITrainer.net / IAAI, 2022
Lithium-Ion Battery Fires, CFITrainer.net / IAAI, 2022
Insurance & Law Enforcement, CFITrainer.net / IAAI, 2022
Daubert Challenge Case Study, CFITrainer.net / IAAI, 2022
Managing Complex Fire Scene Investigations, CFITrainer.net / IAAI, 2022
Determining Responsibility in an Arson Case, CFITrainer.net / IAAI, 2022
Motor Vehicles: Engine, Ignition, & Electrical Systems, CFITrainer.net / IAAI, 2022
NFPA 1033 & 921, 2022 Updates, CFITrainer.net / IAAI, 2022
Photovoltaic Cells & Systems, CFITrainer.net / IAAI, 2022
Preparation for the Marine Fire Scene, CFITrainer.net / IAAI, 2022
Preventing Occupational Exposures to Carcinogens at the Fire Scene, CFITrainer.net / IAAI, 2022
Process of Elimination, CFITrainer.net / IAAI, 2022
Deposition: Format, Content, & Preparation, CFITrainer.net / IAAI, 2022
Deposition: Questioning Tactics & Effective Responses, CFITrainer.net / IAAI, 2022
The HAZWOPER Standard, CFITrainer.net / IAAI, 2022
Potential Value of Electronic Evidence in Fire Investigations, CFITrainer.net / IAAI, 2022
Application of 921 & 1033, CFITrainer.net / IAAI, 2022
Thermometry, Heat, and Heat Transfer, CFITrainer.net / IAAI, 2022
Understanding Fire Through Candle Experiments, CFITrainer.net / IAAI, 2022
Understanding the Fire Investigator's Job, CFITrainer.net / IAAI, 2022
What the Insurance Pro. Needs to Know About Fire Investigation, CFITrainer.net / IAAI, 2022
Wildland Fire Investigation, CFITrainer.net / IAAI, 2022
Fire Behavior, FireRescue1Academy.com, 2022
Fire Cause Determination, FireRescue1Academy, 2022
Fire Investigation and Determination, FireRescue1Academy, 2022
State of Michigan Fire Officer I, II, & III Series, Bureau of Fire Services, 2021
Evaluation & Testing of Common Fire Causes, CFITrainer.net / IAAI, 2020
Fire Flow Analysis, CFITrainer.net / IAAI, 2020
Insurance and Fire Investigation, CFITrainer.net / IAAI, 2020
Legal Aspects of Youth-Set Fires, CFITrainer.net / IAAI, 2020
NFPA 1003 and Your Career, CFITrainer.net / IAAI, 2020
Residential Electrical Systems, CFITrainer.net / IAAI, 2020
Residential Natural Gas Systems, CFITrainer.net / IAAI, 2020
Understanding Undetermined, CFITrainer.net / IAAI, 2020
Live Fire Instructor, International Society of Fire Service Instructors, 2019
Accreditation, Certification, and Certificates, CFITrainer.net / IAAI 2019
Arc Mapping Basics, CFITrainer.net / IAAI 2019

Basic Electricity, CFITrainer.net / IAAI 2019
Charting Fire Investigation Path, CFITrainer.net / IAAI 2019
Critical Thinking Solves Cases, CFITrainer.net / IAAI 2019
Digital Photography & Fire Investigation, CFITrainer.net / IAAI 2019
Discovery in Civil Cases, CFITrainer.net / IAAI 2019
Discovery in Criminal Cases, CFITrainer.net / IAAI 2019
DNA, CFITrainer.net / IAAI 2019
Effective Investigation and Testimony, CFITrainer.net / IAAI 2019
Electrical Safety, CFITrainer.net / IAAI 2019
Ethical Duties Beyond the Fire Scene, CFITrainer.net / IAAI 2019
Ethics and Social Media, CFITrainer.net / IAAI 2019
Evidence Examination, CFITrainer.net / IAAI 2019
Explosion Dynamics, CFITrainer.net / IAAI 2019
Fire Chemistry, CFITrainer.net / IAAI 2019
Fire Investigation for Fire Officers, CFITrainer.net / IAAI 2019
Fire Protection Systems, CFITrainer.net / IAAI 2019
Fundamentals of Interviewing, CFITrainer.net / IAAI 2019
Youth Set Fires, CFITrainer.net / IAAI 2019
Fires & Explosions Involving a Line-of-Duty Death, CFITrainer.net / IAAI 2019
Scientific Method for Fire Investigations, CFITrainer.net / IAAI 2019
State of Michigan Fire Instructor 1, Bureau of Fire Services, 2018
State of Michigan, Health & Safety Officer, Bureau of Fire Services, 2016
State of Michigan, Leadership III, Bureau of Fire Services, 2016
State of Michigan, Leadership I & II, Bureau of Fire Services, 2015
Basic Fire Investigation, Michigan State Police, 2015
Vehicle Fire Investigation, Michigan Arson Prevention Committee, 2015
Basic Fire Investigation, Michigan Arson Prevention Committee, 2015
Fire Investigation, Detroit Police / Fire Arson Unit, 2015
Basic Police Academy, Detroit Police Department, 2015
Fire Investigator I, International Fire Service Training Association, 2014
Station Nightclub Fire, CFITrainer.net / IAAI 2014
Documenting the Event, CFITrainer.net / IAAI 2014
Fire Investigator Scene Safety, CFITrainer.net / IAAI 2014
Fire Responder's Impact on the Fire Investigation, CFITrainer.net / IAAI 2014
Introduction to Evidence, CFITrainer.net / IAAI 2014
Physical Evidence at the Fire Scene, CFITrainer.net / IAAI 2014
Post flashover Fires, CFITrainer.net / IAAI 2014
Search and Seizure, CFITrainer.net / IAAI 2014
Impact of Ventilation on Fire Development, CFITrainer.net / IAAI 2014
Using Resources to Validate Your Hypothesis, CFITrainer.net / IAAI 2014
Vacant & Abandoned Buildings Solutions, CFITrainer.net / IAAI 2014
Writing the Origin & Cause Report, CFITrainer.net / IAAI 2014

Education:

Associate in Fire Science, Schoolcraft College, Livonia, MI 2013

Affiliations:

International Association of Arson Investigators (IAAI)



International Association of Fire Fighters
International Association of Fire Service Instructors
National Association of Fire Investigators (NAFI)
Michigan Sheriffs Association
Oakland County Association of Arson Investigators

Courses Instructed/ Guest Lecturer:

Fraud Indicators in Fire Scenes, Detroit Public Safety Headquarters
Introduction to Fire Investigation, Detroit Fire Department Regional Training Center
Interior Attack Firefighting, Schoolcraft College