

Rachael Klein | Senior Fire Investigator, MS, CFEI, CVFI, IAAI-FIT, IAAI-CFI-V

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Professional Summary:

Ms. Rachael Klein has 17 years of experience in the fire service between Pennsylvania, New York, Connecticut, and Maryland. She has extensive training in the field of fire science, fire dynamics, fire investigations, fire tactics, and public safety management through her education at the University of New Haven and various State fire classes.

Licenses and Certifications:

F.I.R.E Certified Fireplace & Chimney Inspector FCI-0414, July 2023

Private Detective License, Government of the District of Columbia, License Number, PD40000073, February 2023

Certified Fire and Explosion Investigator, Recertification, National Association of Fire Investigators, National, Registration # 20622-12163v, May 2021

Certified Fire Investigator, International Association of Arson Investigators, International, Certificate # 53-101251, October 2020

Private Detective License, Government of the District of Columbia, License Number PD202419, October 2018

Private Detective Certification, State of Maryland, License Number 101-26560, August 2018

Certified Vehicle Fire Investigator, National Association of Fire Investigators, National, Registration # 20622-12163v, September 2017

Fire Investigation Technician, International Association of Arson Investigators, International, January 2017

Private Investigator, Department of Criminal Justice Services, Virginia, DCJS ID: 99-443456, December 2016

Private Investigator, State of Delaware, October 2016

Fire Investigator, State of Connecticut, Commission on Fire Prevention and Control, Fire Service Professional Qualifications, (NFPA 1033, 2014 Edition), June 2016

Certified Fire and Explosion Investigator, National Association of Fire Investigators, National, Registration # 20622-12163, May 2016

Certified Fire Marshal, State of Connecticut Department of Administrative Services, Office of State Fire Marshal & Codes and Standards Committee, March 2016

Certified Fire Investigator, State of Connecticut Department of Administrative Services, Office of State Fire Marshal & Code and Standards Committee, March 2016

Certified Fire Code Inspector, State of Connecticut Department of Administrative Services, Division of Construction Services, November 2015

Certified Open Water Diver, International Diving Educators Association, Registration # 1002658, July 2008

Professional Experience:

EFI Global Inc., Senior Fire Investigator, October 2020- Present
EFI Global Inc., Fire Investigator, July 2018-October 2020
Unified Investigations and Sciences Inc., Fire Investigator, July 2016-July 2018
White Marsh Volunteer Fire Company, July 2020- Present
Bowley's Quarters Volunteer Fire Company, May 2017-April 2018
Middle River Volunteer Fire Company, Firefighter, July 2016-May 2017
East Berlin Volunteer Fire Company, Firefighter, November 2014-July 2016
Milford Fire Department Fire Marshal's Office, Intern, June 2015-August 2015
University of New Haven, Police Report Coder, September 2014-December 2015
Silver Lake Volunteer Fire Company, Captain (2013-2014), Lieutenant (2012), Firefighter, EMT, October 2006 to August 2014
Broome County Bureau of Fire Investigation, Intern, November 2011-August 2014
Town of Binghamton Volunteer Fire Company, Firefighter, October 2008-August 2014
State University of New York (Binghamton), Genetic Laboratory Technician, September 2012-May 2014

Specialized Education:

- OSHA Asbestos Awareness Training #1360, Safety Compliance Management, February 2024, 2 hours (tested)
- Fire Dynamics in the Wildland, International Association of Fire Investigators (IAAI) – CFITrainer.net, January 2024, 3 hours (tested)
- Personal Protective Equipment for Post-Fire Scenes, International Association of Fire Investigators (IAAI) – CFITrainer.net, January 2024, 3 hours (tested)
- Donning and Doffing Personal Protective Equipment, International Association of Fire Investigators (IAAI) – CFITrainer.net, January 2024, 3 hours (tested)
- Asbestos Operations & Maintenance Worker Review, Atlas, July 2023, 4 hours (tested)
- F.I.R.E - Certified Fireplace and Chimney Inspector Program, F.I.R.E, Williston, Vermont, July 2023, 48 hours (tested)
- Knowledge 1 Motor Vehicle Fires Tier 1, International Association of Fire Investigators (IAAI) – CFITrainer.net, June 2023, 8 hours (tested)
- Ignitable Liquid Detection Canine Teams, International Association of Arson Investigators (IAAI) – CFITrainer.net, June 2023, 3 hours (tested)
- Fire Effects Part 2: Combustion By-Products Effects, International Association of Fire Investigators (IAAI) – CFITrainer.net, 3 hours (tested)
- Fire Effects Part 1: Heat Effects on Fuels, International Association of Fire Investigators (IAAI) – CFITrainer.net, May 2023, 3 hours (tested)
- NJ IAAI – Motor Vehicle Fire Investigation, International Association of Fire Investigators (IAAI), New Jersey Chapter, February 2023, 24 hours (tested)
- Site Safety Assessment, International Association of Fire Investigators (IAAI) – CFITrainer.net, February 2023, 3 hours (tested)
- OSHA Asbestos Awareness Training #1360, Safety Compliance Management, February 2023, 2 hours (tested)

- (021) Private Investigator In Service, A Class Academy, February 2023, 8 hours (tested)
- NFPA 1033 & 921 2022/2021 Editions Important Updates, International Association of Arson Investigators (IAAI) – CFITrainer.net, August 2022, 3 hours (tested)
- Photovoltaic Cells & Systems, International Association of Arson Investigators (IAAI) – CFITrainer.net, August 2022, 3 hours (tested)
- Lithium-Ion Battery Fires, International Association of Arson Investigators (IAAI) – CFITrainer.net, August 2022, 1 hour (tested)
- Electric and Hybrid Vehicle Fires, International Association of Arson Investigators (IAAI) – CFITrainer.net, August 2022, 3 hours (tested)
- Electric & Hybrid Vehicle Design Basics, International Association of Fire Investigators (IAAI) – CFITrainer.net, August 2022, 3 hours (tested)
- Asbestos Operations & Maintenance Worker Review, Atlas, July 2022, 4 hours (tested)
- Emerging Technologies in Fire Investigation, International Association of Arson Investigators (IAAI) – CFITrainer.net, July 2022, 3 hours (tested)
- Alternative Fuel Vehicles, International Association of Arson Investigators (IAAI) – CFITrainer.net, July 2022, 3 hours (tested)
- Hazwoper 8 HR Annual Refresher, 360 Training, June 2022 (tested)
- OSHA Asbestos Awareness Training #1360, Safety Compliance Management, March 2022, 2 hours (tested)
- Cigarettes and Smoking Materials as Ignition Sources, Pennsylvania Association of Arson Investigators, January 2022, 7 hours (tested)
- Leo Hermann’s Fireplace and Chimney Services, Inc, Pennsylvania Association of Arson Investigators, January 2022, 7 hours (tested)
- Asbestos Operations & Maintenance Worker Review, ATC, July 2021, 4 hours (tested)
- Hazwoper 8 HR Annual Refresher, 360 Training, May 2021 (tested)
- OSHA Asbestos Awareness Training #1360, Safety Compliance Management, March 2020, 2 hours (tested)
- Preventing Occupational Exposures to Carcinogens at the Fire Scene, International Association of Arson Investigators (IAAI) – CFITrainer.net, October 2020 (tested)
- Asbestos Operations & Maintenance Worker Review, ATC, July 2020, 4 hours (tested)
- Fire Investigator Health and Safety in the Post-fire Environment, EFI Global Continuing Education Program, June 2020, 2.0 hours (tested)
- Hazwoper 40 HR, 360 Training, May 2020, 40 hours (tested)
- Berla Vehicle Data, EFI Global Continuing Education Program, May 2020, 1 hour (tested)
- Spontaneous Combustion, EFI Global Continuing Education Program, May 2020, 1 hour (tested)
- Asbestos Awareness Training, EFI Global Continuing Education Program, May 2020, 1.5 hours (tested)
- Repair Solutions, EFI Global Continuing Education Program, May 2020, 0.5 hour (tested)
- OSHA 8 Hour Hazwoper Refresher Plus #1088, Safety Compliance Management, May 2020, 8 hours (tested)
- Fire Flow Analysis, International Association of Arson Investigators (IAAI) – CFITrainer.net, April 2020, 3 hours (tested)
- Understanding Undetermined, International Association of Arson Investigators (IAAI) – CFITrainer.net, April 2020, 3 hours (tested)
- Critical Evaluation and Testing of Commonly Reported Accidental Causes, International Association of Arson Investigators (IAAI) – CFITrainer.net, April 2020, 3 hours (tested)
- Fire Investigation for Fire Officers, International Association of Arson Investigators (IAAI) – CFITrainer.net, April 2020, 3 hours (tested)
- Charting Your Career Path In Fire Investigation, International Association of Arson Investigators (IAAI) – CFITrainer.net, April 2020, 3 hours (tested)

- Introduction to Appliances, International Association of Arson Investigators (IAAI) – CFITrainer.net, April 2020, 3 hours (tested)
- What the Insurance Professional Needs to Know About Fire Investigation, International Association of Arson Investigators (IAAI) – CFITrainer.net, April 2020, 3 hours (tested)
- OSHA Asbestos Awareness Training #1360, Safety Compliance Management, March 2020, 2 hours (tested)
- Asbestos Operations & Maintenance Worker, ATC, July 2019, 16 hours (tested)
- GHS and OSHA Hazardous Communication, 360 Training, July 2019, 1 hour (tested)
- OSHA 24 Hour Hazwoper Occasional Site Worker Training, Safety Compliance Management, June 2019, 24 hours (tested)
- OSHA Asbestos Awareness Training #1360, Safety Compliance Management, March 2019, 2 hours (tested)
- Marine Fire Investigation, International Association of Arson Investigators (IAAI), February 2019, 28 hours
- International Advanced Fire Investigation Training Program, National Association of Fire Investigators (NAFI), July 2018, 32 hours
- Residential Natural Gas Systems Refresher, International Association of Arson Investigators (IAAI) - CFITrainer.net, January 2018, 3 hours (tested)
- Residential Electrical Systems Refresher, International Association of Arson Investigators (IAAI) - CFITrainer.net, January 2018, 4 hours (tested)
- Fire Chemistry, December 2017, International Association of Arson Investigators (IAAI) - CFITrainer.net, 3 hours (tested)
- Discovery in Criminal Cases, International Association of Arson Investigators (IAAI) - CFITrainer.net, December 2017, 3 hours (tested)
- Discovery in Civil Cases, International Association of Arson Investigators (IAAI) - CFITrainer.net, December 2017, 3 hours (tested)
- Vehicle Fire, Arson & Explosion Investigation Science & Technology Seminar, National Association of Fire Investigators (NAFI), September 2017, 32 hours (tested)
- Motor Vehicles: Transmission, Exhaust, Brake, and Accessory Systems, International Association of Arson Investigators (IAAI) - CFITrainer.net, June 2017, 3 hours (tested)
- Motor Vehicles: The Engine and the Ignition, Electrical, and Fuel Systems, International Association of Arson Investigators (IAAI) - CFITrainer.net, May 2017, 3 hours (tested)
- Investigating Motor Vehicle Fires, International Association of Arson Investigators (IAAI) - CFITrainer.net, March 2017, 4 hours (tested)
- Wildland Fires Investigation, International Association of Arson Investigators (IAAI) - CFITrainer.net, March 2017, 5 hours (tested)
- Investigating Natural Gas Systems, International Association of Arson Investigators (IAAI) - CFITrainer.net, March 2017, 3 hours (tested)
- Investigating Fatal Fires, International Association of Arson Investigators (IAAI) - CFITrainer.net, March 2017, 4 hours, (tested)
- Investigating Fire and Explosion Incidents Involving a Line-Of-Duty Death, International Association of Arson Investigators (IAAI) - CFITrainer.net, February 2017, 3 hours, (tested)
- Thermometry, Heat, and Heat Transfer, International Association of Arson Investigators (IAAI) - CFITrainer.net, February 2017, 3 hours, (tested)
- The Deposition Part 2: Questioning Tactics and Effective Responses, International Association of Arson Investigators (IAAI) - CFITrainer.net, February 2017, 3 hours, (tested)
- Expert Witness Courtroom Testimony Course, International Association of Arson Investigators (IAAI), February 2017, 40 hours, (tested)
- Preparation for the Marine Fire Scene, International Association of Arson Investigators (IAAI) - CFITrainer.net, January 2017, 4 hours, (tested)

- In-Service Webinar Series, Essentials of NFPA 1033, Unified Investigations & Sciences, June 2016-January 2017, 8 hours (tested)
- The Potential Value of Electronic Evidence in Fire Investigations, International Association of Arson Investigators (IAAI) - CFITrainer.net, November 2016, 4 hours, (tested)
- Residential Natural Gas Systems, International Association of Arson Investigators (IAAI) - CFITrainer.net, November 2016, 3 hours, (tested)
- Residential Electrical Systems, International Association of Arson Investigators (IAAI) - CFITrainer.net, November 2016, 4 hours, (tested)
- The HAZWOPER Standard, International Association of Arson Investigators (IAAI) - CFITrainer.net, November 2016, 4 hours, (tested)
- DCJS O2E Private Investigator, AAA Stingray Enterprises, November 2016, 60 hours, (tested)
- Search and Seizure, International Association of Arson Investigators (IAAI) - CFITrainer.net, November 2016, 4 hours, (tested)
- Vacant and Abandoned Buildings: Hazards and Solutions, International Association of Arson Investigators (IAAI) - CFITrainer.net, November 2016, 4 hours, (tested)
- The Deposition Part 1: Format, Content, and Preparation, International Association of Arson Investigators (IAAI) - CFITrainer.net, November 2016, 3 hours, (tested)
- Process of Elimination, International Association of Arson Investigators (IAAI) - CFITrainer.net, November 2016, 3 hours, (tested)
- Postflashover Fires, International Association of Arson Investigators (IAAI) - CFITrainer.net, November 2016, 4 hours, (tested)
- Motive, Means, and Opportunity: Determining Responsibility in an Arson Case, International Association of Arson Investigators (IAAI) - CFITrainer.net, November 2016, 4 hours, (tested)
- Managing Complex Fire Scene Investigations, International Association of Arson Investigators (IAAI) - CFITrainer.net, November 2016, 4 hours, (tested)
- NFPA 921 and 1033 2014 Editions: Important Revisions, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 3 hours (tested)
- Legal Aspects of Investigating Youth-Set Fires, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 3 hours, (tested)
- Introduction to Youth-Set Fires, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 3 hours, (tested)
- Magne Tek: A Case Study In The Daubert Challenge, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 2 hours, (tested)
- Insurance and the Fire Investigation, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 4 hours, (tested)
- Understanding the Fire Investigator's Job: A Guide for Non-Investigators, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 3 hours, (tested)
- Using Resources to Validate your Hypothesis, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 4 hours, (tested)
- Fundamentals of Interviewing, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 4 hours, (tested)
- Fire Dynamics Calculations- Version 2.0, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 4 hours, (tested)
- Explosion Dynamics, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 4 hours. (tested)
- Ethics and Social Media, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 3 hours, (tested)
- Effective Investigation and Testimony, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 3 hours, (tested)
- Digital Photography and the Fire Investigator, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 4 hours, (tested)

- Critical Thinking Solves Cases, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 4 hours, (tested)
- Charleston Sofa Super Store Fire, International Association of Arson Investigators (IAAI) - CFITrainer.net, October 2016, 4 hours, (tested)
- The Practical Application of the Relationship Between NFPA 1033 and NFPA 921, International Association of Arson Investigators (IAAI) - CFITrainer.net, September 2016, 2 hours, (tested)
- Introduction to Evidence, International Association of Arson Investigators (IAAI) - CFITrainer.net, September 2016, 4 hours, (tested)
- Evidence Examination: What Happens at the Lab?, International Association of Arson Investigators (IAAI) - CFITrainer.net, September 2016, 4 hours, (tested)
- 2016 Hazardous Materials Operations Refresher, Baltimore County Fire Rescue Academy Learning Management System, August 2016, (tested)
- MSA G1 Training, Baltimore County Fire Rescue Academy Learning Management System, August 2016, (tested)
- 2016 Bloodborne Pathogen Training, Baltimore County Fire Rescue Academy Learning Management System, August 2016, (tested)
- NFPA 1033 and Your Career, International Association of Arson Investigators (IAAI) - CFITrainer.net, August 2016, 2 hours, (tested)
- Documenting the Event, International Association of Arson Investigators (IAAI) - CFITrainer.net, August 2016, 4 hours, (tested)
- Understanding Fire Through the Candle Experiments, International Association of Arson Investigators (IAAI) - CFITrainer.net, August 2016, 4 hours, (tested)
- The Scientific Method for Fire and Explosion Investigation, International Association of Arson Investigators (IAAI) - CFITrainer.net, July 2016, 3 hours, (tested)
- Ethical Duties Beyond the Fire Scene, International Association of Arson Investigators (IAAI) - CFITrainer.net, June 2016, 3 hours, (tested)
- Accreditation, Certification, and Certificates, International Association of Arson Investigators (IAAI) - CFITrainer.net, June 2016, 3 hours, (tested)
- An Analysis of The Station Nightclub Fire, International Association of Arson Investigators (IAAI) - CFITrainer.net, June 2016, 4 hours, (tested)
- Basic Electricity, International Association of Arson Investigators (IAAI) - CFITrainer.net, June 2016, 4 hours, (tested)
- Introduction to Fire Dynamics and Modeling, International Association of Arson Investigators (IAAI) - CFITrainer.net, June 2016, 4 hours, (tested)
- Fire Protection Systems, International Association of Arson Investigators (IAAI) - CFITrainer.net, June 2016, 3 hours, (tested)
- NFPA 1001 Self-Contained Breathing Apparatus, TargetSolutions, June 2016, (tested)
- William Alvine Memorial Lecture Series, Dr. John Dehaan Fatal Fire Investigation Seminar, University of New Haven, April 2016, 6 hours
- NFPA 1500 Bloodborne Pathogens Safety, TargetSolutions, April 2016, (tested)
- Exercise Evaluation and Improvement Planning, IS 130, Emergency Management Institute, FEMA, May 2015, (tested)
- Writing the Initial Origin and Cause Report, International Association of Arson Investigators (IAAI) - CFITrainer.net, March 2015, 3 hours, (tested)
- DNA, International Association of Arson Investigators (IAAI) - CFITrainer.net, March 2015, 3 hours, (tested)
- The Impact of Ventilation in Building Structures on Fire Development, International Association of Arson Investigators (IAAI) - CFITrainer.net, March 2015, 4 hours, (tested)
- How First Responders Impact the Fire Investigation, International Association of Arson Investigators (IAAI) - CFITrainer.net, March 2015, 2 hours, (tested)

- Arc Mapping Basics, International Association of Arson Investigators (IAAI) - CFITrainer.net, February 2015, 4 hours, (tested)
- Physical Evidence at the Fire Scene, International Association of Arson Investigators (IAAI) - CFITrainer.net, January 2015, 4 hours. (tested)
- Fundamentals of Residential Building Construction, International Association of Arson Investigators (IAAI) - CFITrainer.net, January 2015, 3 hours, (tested)
- Electrical Safety, International Association of Arson Investigators (IAAI) - CFITrainer.net, January 2015, 3 hours, (tested)
- Fire Investigator Scene Safety, International Association of Arson Investigators (IAAI) - CFITrainer.net, January 2015, 3 hours, (tested)
- Ethics and the Fire Investigator, International Association of Arson Investigators (IAAI) - CFITrainer.net, January 2015, 3 hours, (tested)
- Trauma Teaching Day, UHS Emergency & Trauma Services, April 2014, 6.75 hours
- SCBA Confidence, State of New York, Fire Training Certificate, January 2014, 12 hours, (tested)
- Certificate of Training, Epinephrine Auto Injector Pen Administration Principals, PA Department of Health, July 2013, 1 hour (tested)
- Rescue Technician-Basic, State of New York, Fire Training Certificate, October 2013, 24 hours
- ICS for Single Resources and Initial Action Incident, IS-200, Emergency Management Institute, FEMA, February 2012, (tested)
- Fire Police, State of New York, Fire Training Certificate, February 2012, 21 hours, (tested)
- Fire Arson Investigation Seminar, State of New York, Academy of Fire Science Training Certificate, November 2012, 12 hours, (tested)
- Wellsite Emergency for First Responder Training, Broome County Office of Emergency Services, July 2012
- Construction Safety and Health, Occupational Safety and Health Administration, April 2012, 10 hours
- Trauma Teaching Day, UHS Emergency & Trauma Services, April 2012, 6.75 hours
- National Response Framework, An Introduction, IS-800, Emergency Management Institute, FEMA, March 2012, (tested)
- National Incident Management System (NIMS) An Introduction, IS-700, Emergency Management Institute, FEMA, 2012, (tested)
- Chemical Suicide: Information for First Responder, State of New York, Fire Training Certificate, December 2011, 2 hours
- Wellsite Emergency First Responder, Office of the State Fire Commissioner, Pennsylvania State Fire Academy "Academy on the Road", January 2011, 4 hours
- Active Shooter: What You Can Do, FEMA IS-907, Emergency Management Institute, FEMA, April 2011, (tested)
- Emergency Vehicle Driver Training, VFIS, April 2011, 16 hours (tested)
- Firefighter 1, State of New York, Fire Training Certificate, June 2010, 86 hours, (tested)
- Introduction to the Incident Command System, IS-100, Emergency Management Institute, FEMA, June 2010, (tested)

Education:

Master of Science in Fire Science, Concentration in Arson Investigation and Certificate in Public Safety Management, University of New Haven, West Haven, Connecticut, 2016

Bachelor of Science in Anthropology, Minor in Biology, State University of New York (Binghamton), Binghamton, New York, 2014
State University of New York (Binghamton)

Affiliations:

National Fire Protection Association (NFPA) 2022
International Association of Arson Investigators (IAAI) 2015
National Association of Fire Investigators (NAFI) 2015
National Capital Pond- Honorable Order of the Blue Goose 2017-2019

Courses Instructed/ Guest Lecturer:

WBAL Radio with Jayne Miller, Smoke Alarms, March 2024 (Guest Speaker)
Fox 45 News, Baltimore Maryland, Space Heaters, November 2023 (Guest Speaker)
Subro Sessions, White and Williams, Podcast, September 2023 (Guest Speaker)
Augusta Mutual Insurance Company, Staunton, VA Office, July 2019 (Guest Lecturer)
Fire Investigation II, University of New Haven, May 2018 (Guest Lecturer)

Honors and Awards:

Pinnacle Award, EFI Global, 2022-2023
Summit Award, Unified Investigations and Sciences Inc., 2017
Summit Award, Unified Investigations and Sciences Inc., 2016
Firefighter of the Year Award, Silver Lake Volunteer Fire Company 2011