

## PROFESSIONAL SUMMARY

- Certified Fire and Explosion Investigator, National Association of Fire Investigators (NAFI).
- Certified Evidence Collection Technician, International Association of Arson Investigators (IAAI).
- Primary areas of consultation: Forensic fire analysis, vehicle fire analysis inclusive of recreational, personal, and commercial vehicles. Residential appliance failure analysis and site and structural documentation.
- Residential construction, foundation and roof inspections, water intrusion/damage, and foundation failure/deflection analysis.
- Laboratory manager, evidence documentation and preservation, computerized test configuration and monitoring, radiation safety officer.

## EMPLOYMENT RECORD

- 2022-Present **MCDOWELL OWENS ENGINEERING, INC**  
Houston, Texas Fire Analyst/Engineering Technician. Primary areas of responsibility include forensic fire analysis inclusive of residential, commercial, and industrial losses as well as recreation and commercial vehicles and appliance fires. The identification, documentation, preservation, and collection of evidence. Serves as laboratory manager and radiation safety officer.
- 2019-2022 **GOODSON ENGINEERING**  
Denton, Texas Fire origin and cause investigator. Evidence technician and laboratory assistant.
- 2017-2019 **RICK JONES FORENSICS**  
Denton, Texas Fire and explosion investigation assistant. Evidence collection technician.

## EDUCATION

- Undergraduate Studies in Mechanical Engineering at Houston Community College, 2023 - Present.
- Undergraduate Studies in Fire Science at North Central Texas College, 2020-2022.
- Undergraduate Studies in Mechanical Engineering Program at the University of Arkansas, 2018-2019.

## CONTINUING EDUCATION

- 07/2021 - NAFI, International Fire, Arson, & Explosion Investigation Training Program (32 hours)
- 07/2019 - IAAI, DNA (3 hours)
- 07/2019 - IAAI, Documenting the Event (4 hours)
- 07/2019 - IAAI, Ethics and the Fire Investigator (3 hours)
- 07/2019 - IAAI, Evidence Examination: What Happens at the Lab? (4 hours)
- 07/2019 - IAAI, Introduction to Evidence (4 hours)
- 07/2019 - IAAI, NFPA 1033 and Your Career (2 hours)
- 07/2019 - IAAI, Physical Evidence at the Fire Scene (4 hours)
- 07/2019 - IAAI, The Practical Application of the Relationship Between NFPA 1033 and NFPA 921 (2 hours)
- 07/2019 - IAAI, The Scientific Method for Fire and Explosion Investigation (3 hours)

## REGISTRATIONS, LICENSES & CERTIFICATIONS

- Certified Fire and Explosion Investigator
- International Association Arson Investigation: Evidence Collection Investigator (IAAI-ECT #724)
- Radiation Machine Source Radiation Safety Officer: Texas Department of State Health Services, Radiation Machine Source Unit - Registration 38326
- USA DOT FAA - Remote Pilot License – DRONE – License No. 4682886

## PROFESSIONAL MEMBERSHIPS

- International Association of Arson Investigators (IAAI). (National).
- Texas Chapter, International Association of Arson Investigators.
- National Association of Fire Investigators.
- National Fire Protection Association – Company Affiliation.

## RESEARCH AND TESTING

- Various ground resistance testing.
- Documenting electrical conductor heat buildup when encased in spray foam insulation with various loads.
- Tested the ignition potential of fuel vapor when fueling the engine while operating.
- Tested failure mode of Lithium Ion Batteries at different charges (Lithium-Ion 18650 batteries) using a heated oil filled beaker.
- Exposed Lithium-Ion batteries to open flame and documented failure times and mode.
- Testing of Butane-fired Camp Stove with LPG container subjected to flame.
- Documented flame spread and mass loss rate of Spray Foam Insulation under fire conditions.
- Subjected FireBlock Insulating Foam Sealant containers to fire and documented the reaction.
- Industrial sprinkler head water loss testing, open flow and semi-capped, to observe the affects of staining and water penetration on ceiling tiles.