



**JIMMY H. BEARD, M.S.E.E., P.E., CFEI**

Beard Forensic Engineering Services, LLC  
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## **EDUCATION**

- 1996                   **Masters of Science, Electrical Engineering**  
Mississippi State University, Mississippi State, Mississippi
- 1990                   **Bachelor of Science, Electrical Engineering**  
Mississippi State University, Mississippi State, Mississippi
- 1988                   **Associate of Arts, Pre-Engineering**  
Southwest Mississippi Community College, Summit, Mississippi

## **EXPERIENCE**

- October 2022  
to Present           **Beard Forensic Engineering Services, LLC**  
*Daphne, Alabama*  
*Principal Consulting Engineer*  
Consulting in the area of electrical engineering for residential, commercial, and industrial systems, including fire investigations, electrical system failures, electrical code compliance review, technical investigation of incidents involving industrial electrical power distribution systems and industrial control systems, scope of damage, and analysis of costs to repair or replace electrical equipment and systems.
- November 2018  
to October 2022   **Engineering Design & Testing Corp.**  
*Birmingham, Alabama*  
*Consulting Electrical Engineer and Fire Investigator*  
Consulting in the area of electrical engineering for residential, commercial, and industrial systems, including origin and cause analysis of fires, electrical system failures, electrical code compliance review, technical investigation of incidents involving industrial electrical power distribution systems and industrial control systems, scope of damage, and analysis of costs to repair or replace electrical equipment and systems.
- September 2006  
to November 2018   **AT&T**  
*Birmingham, Alabama*  
*Area Manager — Internet and Entertainment Services*  
Manager of a team of analysts focused on providing an exceptional customer experience for DirecTV, IPTV, internet, and core services. Work included supervision and mentorship of subordinates, data analysis, process design, resource and budget management, and customer service analytics for internal and external clients.
- September 2001  
to September 2006   **BellSouth Corporation**  
*Jackson, Mississippi*  
*Area Manager — Work Management Center*  
Led a team of management and non-management employees focused on customer repair and installation fulfillment, technician resource management, and customer commitments for all product types. Additional responsibilities included customer trouble testing and resolution, troubleshooting and repair of pair-gain test systems, and monitoring and repair of pressurized cable systems.
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June 1999  
to September 2001

**BellSouth Corporation**  
***Tupelo, Mississippi***

*Area Manager — Outside Plant Engineering & Construction.*

Led a large team of management and non-management employees engaged in the design and construction of outside plant facilities, including scheduling, budgeting, performance management, managing the vendor/partner engineering company, and negotiating placement contracts. Responsibilities included planning and design reviews of construction projects, material ordering and management, construction of aerial, buried, and underground facilities, construction of fiber optic and digital loop carrier systems, and maintenance and repair of fiber optic and pressurized cable systems.

January 1998  
to June 1999

**BellSouth Corporation**  
***Gulfport, Mississippi***

*Project Manager — Outside Plant Engineering & Construction.*

Managed the construction and engineering of all major programmed work for the Mississippi Gulf Coast area. Coordinated site acquisition, coordinated with DOT and other utilities, scheduled construction and engineering forces and prioritized work activities, ordered materials, coordinated work activities with customers, tracked cost estimates, performed quality reviews of engineering work prints.

June 1992  
to January 1998

**BellSouth Corporation**  
***Jackson, Mississippi***

*Specialist — Transmission Engineering and Support*

Provided engineering support and tier-II technical support for all aspects of the transport network. Responsibilities included fiber and copper transport system engineering; turnup, acceptance testing, and troubleshooting of fiber optic multiplexers, digital loop electronics, and network synchronization elements; vendor equipment testing and certification; and technician training program development and delivery.

Summers, 1982  
to 1988

**Hoyt Beard, General Contractor**  
***McComb, Mississippi***

*Construction Laborer*

Assisted in the construction of wood-framed buildings, including pouring concrete, framing, sheathing, roofing, painting, and finish carpentry. Also assisted in the repairs and remodeling of residential and commercial structures.

**REGISTRATIONS and CERTIFICATIONS**

Registered Professional Engineer in Alabama (#28590)  
Registered Professional Engineer in Arkansas (#18594)  
Registered Professional Engineer in Florida (#86192)  
Registered Professional Engineer in Georgia (#PE043913)  
Registered Professional Engineer in Louisiana (#PE.0043165)  
Registered Professional Engineer in Mississippi (#PE-14031)  
Registered Professional Engineer in North Carolina (#056315)  
Registered Professional Engineer in Tennessee (#122308)  
Registered Professional Engineer in Texas (#133804)  
Registered Professional Engineer in West Virginia (#25452)  
NAFI Certified Fire and Explosion Investigator (CFEI#23837-13738)

**PROFESSIONAL ORGANIZATIONS**

Institute of Electrical and Electronics Engineers (IEEE, Member 2018 - present)  
International Association of Arson Investigators (IAAI, Member 2018 - present)  
Alabama Association of Arson Investigators (AAAI, Board of Directors Jan 2022 - present)  
National Association of Fire Investigators (NAFI, Member 2019 - present)  
National Fire Protection Association (NFPA, Member 2018 - present)  
Underwriters Laboratories Standards Technical Panel Member (UL STM-325, 2021 – present)

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**CONTINUING EDUCATION**

- 2024      *ITC Advanced Concepts in Self-Heating Fires*, IAAI 2024 International Training Conference, Las Vegas, Nevada (4 hours tested)
- ITC Observational Indicators of Enhanced Soot Deposition on Smoke Alarms*, IAAI 2024 International Training Conference, Las Vegas, Nevada (2 hours tested)
- ITC Introduction to Hybrid and Electric Vehicle Fires*, IAAI 2024 International Training Conference, Las Vegas, Nevada (4 hours tested)
- ITC Lightning-Induced CSST Fire Claims and Litigation*, IAAI 2024 International Training Conference, Las Vegas, Nevada (2 hours tested)
- 2024 ITC Opening Ceremonies*, IAAI 2024 International Training Conference, Las Vegas, Nevada (3 hours tested)
- ITC Potential of Smart Metering Devices in Fire and Crime Investigation*, IAAI 2024 International Training Conference, Las Vegas, Nevada (4 hours tested)
- ITC Understanding ATF CSST and Lightning*, IAAI 2024 International Training Conference, Las Vegas, Nevada (4 hours tested)
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- 2023      *EE-03-952 Low Voltage Switchgear*, PDH-Pro, Daphne, Alabama (3 hours)
- EE-02-802 Cathodic Protection*, PDH-Pro, Daphne, Alabama (4 hours)
- EE-03-953 Power Cable Testing*, PDH-Pro, Daphne, Alabama (3 hours)
- EE-03-955 Power Transformer Testing*, PDH-Pro, Daphne, Alabama (3 hours)
- EE-02-101 Lightning and Static Electricity*, PDH-Pro, Daphne, Alabama (2 hours)
- ET-02-001 Ethics and Standards of Professional Conduct*, PDH-Pro, Daphne, Alabama (2 hours)
- AL-2023-Chimney Fires*, Alabama Association of Arson Investigators, Cullman, Alabama (6 hours tested)
- High-Altitude Electromagnetic Pulse and the Power Grid*, IEEE Alabama Section, Daphne, Alabama (1 hour)
- ITC An Examination of Wi-Fi (Smart) Plug*, IAAI 2023 International Training Conference, Cherokee, North Carolina (2 hours tested)
- ITC Fire Photography*, IAAI 2023 International Training Conference, Cherokee, North Carolina (2 hours tested)
- ITC NFPA 1321 Standards on Fire Investigation Units*, IAAI 2023 International Training Conference, Cherokee, North Carolina (2 hours tested)
- ITC Looking Past the Fire*, IAAI 2023 International Training Conference, Cherokee, North Carolina (4 hours tested)
- ITC Butane Hash Oil*, IAAI 2023 International Training Conference, Cherokee, North Carolina (4 hours tested)
- ITC Understanding Fuel Gas Codes*, IAAI 2023 International Training Conference, Cherokee, North Carolina (2 hours tested)
- ITC Firearm and Fire Cause*, IAAI 2023 International Training Conference, Cherokee, North Carolina (4 hours tested)
- ITC Complex Fire Investigation with Focus on Electrical Systems*, IAAI 2023 International Training Conference, Cherokee, North Carolina (6 hours tested)
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- ITC Digital Forensics*, IAAI 2023 International Training Conference, Cherokee, North Carolina (2 hours tested)
- ITC Born to Burn*, IAAI 2023 International Training Conference, Cherokee, North Carolina (2 hours tested)
- ITC Gone With or Without a Trace*, IAAI 2023 International Training Conference, Cherokee, North Carolina (2 hours tested)
- 2023 ITC Opening Ceremonies*, IAAI 2023 International Training Conference, Cherokee, North Carolina (2 hours tested)
- Circuit Breaker Selection and Application*, IEEE Alabama Section, Daphne, Alabama (1 hour)
- 2022 *Cable Aging Management*, IEEE Alabama Section, Cullman, Alabama (1 hour)
- Ethics for Professional Engineers*, EZ-pdh.com, Daphne, Alabama (1 hour)
- Florida Laws and Rules for Professional Engineers*, EZ-pdh.com, Daphne, Alabama (1 hour)
- AAAI 2022 Case Study*, Alabama Association of Arson Investigators, Clanton, Alabama (4 hours tested)
- AAAI 2022 Fire Chemistry*, Alabama Association of Arson Investigators, Clanton, Alabama (8 hours tested)
- AAAI 2022 Lithium Ion Batteries*, Alabama Association of Arson Investigators, Clanton, Alabama (4 hours tested)
- AAAI 2022 Strengthening Autism Friendly Experiences*, Alabama Association of Arson Investigators, Clanton, Alabama (4 hours tested)
- Charting Your Career Path in Fire Investigations*, IAAI, CFITrainer.net module (3 hours tested)
- Critical Evaluation and testing of Commonly Reported Accidental Causes*, IAAI, CFITrainer.net module (3 hours tested)
- Fundamentals of Residential Building Construction*, IAAI, CFITrainer.net module (3 hours tested)
- Fire Investigator Scene Safety*, IAAI, CFITrainer.net module (3 hours tested)
- Documenting the Event*, IAAI, CFITrainer.net module (4 hours tested)
- Effective Investigation and Testimony*, IAAI, CFITrainer.net module (3 hours tested)
- Alternative Fuel Vehicles*, IAAI, CFITrainer.net module (3 hours tested)
- Fire Chemistry*, IAAI, CFITrainer.net module (3 hours tested)
- Fire Flow Analysis*, IAAI, CFITrainer.net module (3 hours tested)
- Digital Photography and Fire Investigation*, IAAI, CFITrainer.net module (4 hours tested)
- Emerging Technologies in Fire Investigation*, IAAI, CFITrainer.net module (3 hours tested)
- Fire Protection Systems*, IAAI, CFITrainer.net module (3 hours tested)
- Explosion Dynamics*, IAAI, CFITrainer.net module (4 hours tested)
- Introduction to Fire Dynamics and Modeling*, IAAI, CFITrainer.net module (4 hours tested)
- Introduction to Evidence*, IAAI, CFITrainer.net module (4 hours tested)
- Process of Elimination*, IAAI, CFITrainer.net module (3 hours tested)
- NFPA 1033 and Your Career*, IAAI, CFITrainer.net module (2 hours tested)
- The Scientific Method for Fire and Explosion Investigation*, IAAI, CFITrainer.net module (3 hours tested)
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- Underground Cable Design Considerations and Failure Analysis*, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.5 hours)
- Fire Investigation Team and Mathematical Modeling of Enclosure Fires*, Engineering, Design, and Testing Corp, Birmingham, Alabama (3.25 hours)
- Circuit Breakers*, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.75 hours)
- Losses at Renewable Energy Stations*, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.75 hours)
- Hydraulic Systems and Components*, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.75 hours)
- The Deposition Part 1: Format, Content, and Preparation*, IAAI, CFITrainer.net module (3 hours tested)
- The Deposition Part 2: Questioning Tactics and Effective Responses*, IAAI, CFITrainer.net module (3 hours tested)
- 2022 ITC Opening Ceremonies*, IAAI 2022 International Training Conference, Jacksonville, Florida (2 hours tested)
- 40-Hour Fundamentals of Fire Investigation*, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
- 2022 ITC Case Study – Allentown Vehicle Explosion*, IAAI 2022 International Training Conference, Jacksonville, Florida, (2 hours tested)
- Introduction to Heat Transfer and Fire Measurements*, UL Firefighter Safety Research Institute, (1.25 hours tested)
- 2021 *Battery Technologies for Station Power*, IEEE, Cullman, Alabama (1 hour)
- Fire Alarm Systems*, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.75 hours)
- Power Factor and Power Factor Corrections*, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.75 hours)
- Photovoltaics and Energy Storage*, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.75 hours)
- Finite Element Analysis*, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.75 hours)
- Ethics for Professional Engineers*, EZ-PDH, Birmingham, Alabama (1 hour)
- Damage Assessments in Telecommunications Networks*, Engineering, Design, and Testing Corp, Birmingham, Alabama (3.5 hours)
- Fire Investigations and NFPA921: An Education for Engineers*, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.75 hours)
- AAAI Fall Training Workshop*, Alabama Association of Arson Investigators, Clanton, Alabama (8 hours tested)
- 2020 *Understanding Smart Home Networks*, Engineering, Design, and Testing Corp, Savannah, Georgia (4 hours)
- Understanding the Impact of Power Quality Problems*, Engineering, Design, and Testing Corp, Savannah, Georgia (2 hours)
- The User Experience of Smart Lighting Control*, Lutron, Huntsville, Alabama (1 hour)
- The C Change in Outdoor Lighting*, Signify, Huntsville, Alabama (1 hour)
- Color Metrics and TM-30*, Hubbell Lighting, Huntsville, Alabama (1 hour)
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- Florida Law and Rules*, PDHNow, Birmingham, Alabama (1 hour)
- Engineering Ethics: Kansas City Hyatt Walkway Collapse*, PDHNow, Birmingham, Alabama (1 hour)
- Grounding and Bonding of Electrical Systems*, PDHNow, Birmingham, Alabama (4 hours)
- Florida Building Code, Fire Protection Systems*, PDHNow, Birmingham, Alabama (4 hours)
- Emergency and Standby Power Systems*, PDHNow, Birmingham, Alabama (4 hours)
- 2019 *Ethics for the Practicing Engineer*, Red Vector, Birmingham, Alabama (1 hour)
- Building Your Practice*, ED&T, Charlotte, North Carolina (4 hours)
- Interdisciplinary Investigations*, ED&T, Charlotte, North Carolina (2 hours)
- Investigation of Gas and Electric Appliance Fires*, Fire Findings, Benton Harbor, Michigan (30 hours tested)
- International Fire, Arson & Explosion Investigation Training Program*, National Association of Fire Investigators, Seattle, Washington (28 hours tested)
- Lightning in Three Acts*, Engineering, Design, and Testing Corp., Charlotte, North Carolina (2 hours)
- Basics of Insulation Resistance Testing*, Engineering, Design, and Testing Corp., Charlotte, North Carolina (2 hours)
- Human-Machine Interfaces*, Engineering, Design, and Testing Corp., Charlotte, North Carolina (2 hours)
- Electrical Connection Failures*, Engineering, Design, and Testing Corp., Charlotte, North Carolina (3 hours)
- 2018 *Bloom Energy Technology*, AT&T, Birmingham, Alabama
- Patents*, AT&T, Birmingham, Alabama
- Big Data Overview*, AT&T, Birmingham, Alabama
- Internet of Things Overview*, AT&T, Birmingham, Alabama
- OSHA Permit-Required Confined Space Entry*, eTraining Inc., Birmingham, Alabama
- Professionalism and Ethics*, Louisiana Professional Engineering and Land Surveying Board, Birmingham, Alabama
- 2017-2018 *Cyber Security*, Champlain College, Birmingham, Alabama
- 2017 *Access Control Lists*, AT&T, Birmingham, Alabama
- Eaton/Bussmann Consulting Engineer Training*, Eaton Corporation, St. Louis, Missouri
- EIGRP Implementation*, AT&T, Birmingham, Alabama
- Network Environment Management*, AT&T, Birmingham, Alabama
- Undersea Cables Overview*, AT&T, Birmingham, Alabama
- WAN Connections*, AT&T, Birmingham, Alabama
- Wireless LANs*, AT&T, Birmingham, Alabama
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## 2022 NFPA 1033 Job Performance Requirements

### Fire Science:

- Fire Chemistry
  - 2024 - Advanced Concepts in Self-Heating Fires, IAAI 2024 International Training Conference, Las Vegas, Nevada (4 hours tested)
  - 2022 - AAAI 2022 Fire Chemistry, Alabama Association of Arson Investigators, Clanton, Alabama (8 hours tested)
  - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
  - 2022 - Fire Chemistry, IAAI, CFITrainer.net module (3 hours tested)
  - 2022 ITC Case Study – Allentown Vehicle Explosion, IAAI 2022 International Training Conference, Jacksonville, Florida (2 hours tested)
  - 2019 - Investigation of Gas and Electric Appliance Fires, Fire Findings, Benton Harbor, Michigan (30 hours tested)
  - 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (28 hours tested)
- Thermodynamics
  - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
  - 2022 - Introduction to Heat Transfer and Fire Measurements, UL Firefighter Safety Research Institute (1.25 hours tested)
  - 2022 - Fire Flow Analysis, IAAI, CFITrainer.net module (3 hours tested)
  - 2022 - Introduction to Fire Dynamics and Modeling, IAAI, CFITrainer.net module (4 hours tested)
  - 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (28 hours tested)
- Fire Dynamics
  - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
  - 2022 - Fire Flow Analysis, IAAI, CFITrainer.net module (3 hours tested)
  - 2022 - Introduction to Fire Dynamics and Modeling, IAAI, CFITrainer.net module (4 hours tested)
  - 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (28 hours tested)
- Explosion Dynamics
  - 2022 ITC Case Study – Allentown Vehicle Explosion, IAAI 2022 International Training Conference, Jacksonville, Florida (2 hours tested)
  - 2022 - Explosion Dynamics, IAAI, CFITrainer.net module (4 hours tested)
  - 2019 - Investigation of Gas and Electric Appliance Fires, Fire Findings, Benton Harbor, Michigan (30 hours tested)
  - 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (28 hours tested)

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**Fire Investigation:**

- **Fire Analysis**
  - 2024 - Observational Indicators of Enhanced Soot Deposition on Smoke Alarms, IAAI 2024 International Training Conference, Las Vegas, Nevada (2 hours tested)
  - 2023 - ITC Born to Burn, IAAI 2023 International Training Conference, Cherokee, North Carolina (2 hours tested)
  - 2023 - ITC Butane Hash Oil, IAAI 2023 International Training Conference, Cherokee, North Carolina (4 hours tested)
  - 2022 - AAAI 2022 Case Study, Alabama Association of Arson Investigators, Clanton, Alabama (4 hours tested)
  - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
  - 2022 - Fire Flow Analysis, IAAI, CFITrainer.net module (3 hours tested)
  - 2022 - The Scientific Method for Fire and Explosion Investigation, IAAI, CFITrainer.net module (3 hours tested)
  - 2022 - Critical Evaluation and testing of Commonly Reported Accidental Causes, IAAI, CFITrainer.net module (3 hours tested)
  - 2022 - Process of Elimination, IAAI, CFITrainer.net module (3 hours tested)
  - 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (28 hours tested)
  
- **Fire Investigation Methodology**
  - 2024 - Observational Indicators of Enhanced Soot Deposition on Smoke Alarms, IAAI 2024 International Training Conference, Las Vegas, Nevada (2 hours tested)
  - 2023 - ITC Complex Fire Investigation with Focus on Electrical Systems, IAAI 2023 International Training Conference, Cherokee, North Carolina (6 hours tested)
  - 2023 - ITC Looking Past the Fire, IAAI 2023 International Training Conference, Cherokee, North Carolina (4 hours tested)
  - 2023 - ITC Fire Photography, IAAI 2023 International Training Conference, Cherokee, North Carolina (2 hours tested)
  - 2022 - AAAI 2022 Case Study, Alabama Association of Arson Investigators, Clanton, Alabama (4 hours tested)
  - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
  - 2022 ITC Case Study – Allentown Vehicle Explosion, IAAI 2022 International Training Conference, Jacksonville, Florida (2 hours tested)
  - 2022 - Critical Evaluation and testing of Commonly Reported Accidental Causes, IAAI, CFITrainer.net module (3 hours tested)
  - 2022 - Documenting the Event, IAAI, CFITrainer.net module (4 hours tested)
  - 2022 - Effective Investigation and Testimony, IAAI, CFITrainer.net module (3 hours tested)
  - 2022 - Digital Photography and Fire Investigation, IAAI, CFITrainer.net module (4 hours tested)
  - 2022 - Process of Elimination, IAAI, CFITrainer.net module (3 hours tested)
  - 2022 - NFPA 1033 and Your Career, IAAI, CFITrainer.net module (2 hours tested)

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- 2022 - The Scientific Method for Fire and Explosion Investigation, IAAI, CFITrainer.net module (3 hours tested)
  - 2021 - AAAI Fall Training Workshop, Alabama Association of Arson Investigators, Clanton, Alabama (8 hours tested)
  - 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (28 hours tested)
  - 2019 - Interdisciplinary Investigations, ED&T, Charlotte, North Carolina (2 hours)
  - Fire Investigation Technology
    - 2024 - Potential of Smart Metering Devices in Fire and Crime Investigation, IAAI 2024 International Training Conference, Las Vegas, Nevada (4 hours tested)
    - 2023 - ITC Gone With or Without a Trace, IAAI 2023 International Training Conference, Cherokee, North Carolina (2 hours tested)
    - 2023 - ITC Digital Forensics, IAAI 2023 International Training Conference, Cherokee, North Carolina (2 hours tested)
    - 2023 - ITC Firearm and Fire Cause, IAAI 2023 International Training Conference, Cherokee, North Carolina (4 hours tested)
    - 2023 - ITC An Examination of Wi-Fi (Smart) Plug, IAAI 2022 International Training Conference, Cherokee, North Carolina (2 hours tested)
    - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
    - 2022 ITC Case Study – Allentown Vehicle Explosion, IAAI 2022 International Training Conference, Jacksonville, Florida (2 hours tested)
    - 2022 - Digital Photography and Fire Investigation, IAAI, CFITrainer.net module (4 hours tested)
    - 2022 - Emerging Technologies in Fire Investigation, IAAI, CFITrainer.net module (3 hours tested)
    - 2022 - Introduction to Fire Dynamics and Modeling, IAAI, CFITrainer.net module (4 hours tested)
    - Introduction to Heat Transfer and Fire Measurements, UL Firefighter Safety Research Institute (1.25 hours tested)
    - 2021 - AAAI Fall Training Workshop, Alabama Association of Arson Investigators, Clanton, Alabama (8 hours tested)
    - 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (28 hours tested)
  - Evidence Documentation, Collection, and Preservation
    - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
    - 2022 ITC Case Study – Allentown Vehicle Explosion, IAAI 2022 International Training Conference, Jacksonville, Florida (2 hours tested)
    - 2022 - Documenting the Event, IAAI, CFITrainer.net module (4 hours tested)
    - 2022 - Introduction to Evidence, IAAI, CFITrainer.net module (4 hours tested)
    - 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (28 hours tested)
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- Failure Analysis and Analytical Tools
  - 2024 - Potential of Smart Metering Devices in Fire and Crime Investigation, IAAI 2024 International Training Conference, Las Vegas, Nevada (4 hours tested)
  - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
  - 2022 - Underground Cable Design Considerations and Failure Analysis, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.5 hours)
  - 2021 - Finite Element Analysis, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.75 hours)
  - 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (28 hours tested)
  - 2019 - Electrical Connection Failures, Engineering, Design, and Testing Corp., Charlotte, North Carolina (3 hours)
  - 2019 - Investigation of Gas and Electric Appliance Fires, Fire Findings, Benton Harbor, Michigan (30 hours tested)

#### Fire Scene Safety:

- Hazard recognition, Evaluation, and Basic Mitigation Procedures
  - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
  - 2022 - Fire Investigator Scene Safety, IAAI, CFITrainer.net module (3 hours tested)
  - 2022 - Alternative Fuel Vehicles, IAAI, CFITrainer.net module (3 hours tested)
  - 2022 ITC Case Study – Allentown Vehicle Explosion, IAAI 2022 International Training Conference (2 hours tested)
  - 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (28 hours tested)
- Hazardous Materials
  - 2023 - ITC Butane Hash Oil, IAAI 2023 International Training Conference, Cherokee, North Carolina (4 hours tested)
  - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
  - 2022 - Fire Investigator Scene Safety, IAAI, CFITrainer.net module (3 hours tested)
  - 2022 - Alternative Fuel Vehicles, IAAI, CFITrainer.net module (3 hours tested)
  - 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (28 hours tested)
- Safety Regulations
  - 2023 - ITC NFPA 1321 Standards on Fire Investigation Units, IAAI 2023 International Training Conference, Cherokee, North Carolina (2 hours tested)
  - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
  - 2022 - Fire Investigator Scene Safety, IAAI, CFITrainer.net module (3 hours tested)
  - 2022 - Alternative Fuel Vehicles, IAAI, CFITrainer.net module (3 hours tested)

- 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (28 hours tested)
- 2018 - OSHA Permit-Required Confined Space Entry, eTraining Inc., Birmingham, Alabama

#### Building Systems:

- Types of Construction
  - 2023 - AL-2023-Chimney Fires, Alabama Association of Arson Investigators, Cullman, Alabama (6 hours tested)
  - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
  - 2022 - Fundamentals of Residential Building Construction, IAAI, CFITrainer.net module (3 hours tested)
- Fire Protection Systems
  - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
  - 2022 - Fire Protection Systems, IAAI, CFITrainer.net module (3 hours tested)
  - 2021 - Fire Alarm Systems, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.75 hours)
  - 2020 - Florida Building Code, Fire Protection Systems, PDHNow, Birmingham, Alabama (4 hours)
  - 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (24 hours tested)
- Electricity and Electrical Systems
  - 2024 - Understanding ATF CSST and Lightning, IAAI 2024 International Training Conference, Las Vegas, Nevada (4 hours tested)
  - 2024 - Lightning-Induced CSST Fire Claims and Litigation, IAAI 2024 International Training Conference, Las Vegas, Nevada (2 hours tested)
  - 2024 - Introduction to Hybrid and Electric Vehicle Fires, IAAI 2024 International Training Conference, Las Vegas, Nevada (4 hours tested)
  - 2023 - EE-02-101 Lightning and Static Electricity, PDH-Pro, Daphne, Alabama (2 hours)
  - 2023 - EE-03-952 Low Voltage Switchgear, PDH-Pro, Daphne, Alabama (3 hours)
  - 2023 - Circuit Breaker Selection and Application, IEEE Alabama Section, Daphne, Alabama (1 hour)
  - 2023 - ITC Complex Fire Investigation with Focus on Electrical Systems, IAAI 2023 International Training Conference, Cherokee, North Carolina (6 hours tested)
  - 2023 - Circuit Breaker Selection and Application, IEEE Alabama Section, Daphne, Alabama (1 hour)
  - 2022 - Lithium Ion Batteries, Alabama Association of Arson Investigators, Clanton, Alabama (4 hours tested)
  - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
  - 2022 - Underground Cable Design Considerations and Failure Analysis, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.5 hours)
  - 2022 - Circuit Breakers, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.5 hours)

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- 2022 - Losses at Renewable Energy Stations, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.5 hours)
  - 2021 - Battery Technologies for Station Power, IEEE, Cullman, Alabama (1 hour)
  - 2021 - Power Factor and Power Factor Corrections, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.75 hours)
  - 2021 - Photovoltaics and Energy Storage, Engineering, Design, and Testing Corp, Birmingham, Alabama (1.75 hours)
  - 2021 - Damage Assessments in Telecommunications Networks, Engineering, Design, and Testing Corp, Birmingham, Alabama (3.5 hours)
  - 2021 - AAI Fall Training Workshop, Alabama Association of Arson Investigators, Clanton, Alabama (8 hours tested)
  - 2020 - Understanding Smart Home Networks, Engineering, Design, and Testing Corp, Savannah, Georgia (4 hours)
  - 2020 - Understanding the Impact of Power Quality Problems, Engineering, Design, and Testing Corp, Savannah, Georgia (2 hours)
  - 2020 - The User Experience of Smart Lighting Control, Lutron, Huntsville, Alabama (1 hour)
  - 2020 - The C Change in Outdoor Lighting, Signify, Huntsville, Alabama (1 hour)
  - 2020 - Emergency and Standby Power Systems, PDHNow, Birmingham, Alabama (4 hours)
  - 2020 - Grounding and Bonding of Electrical Systems, PDHNow, Birmingham, Alabama (4 hours)
  - 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (28 hours tested)
  - 2019 - Electrical Connection Failures, Engineering, Design, and Testing Corp., Charlotte, North Carolina (3 hours)
  - 2019 - Basics of Insulation Resistance Testing, Engineering, Design, and Testing Corp., Charlotte, North Carolina (2 hours)
  - 2019 - Lightning in Three Acts, Engineering, Design, and Testing Corp., Charlotte, North Carolina (2 hours)
  - 2019 - Investigation of Gas and Electric Appliance Fires, Fire Findings, Benton Harbor, Michigan (30 hours tested)
  - 2017 - Eaton/Bussmann Consulting Engineer Training, Eaton Corporation, St. Louis, Missouri
  - Fuel Gas Systems
    - 2024 - Understanding ATF CSST and Lightning, IAAI 2024 International Training Conference, Las Vegas, Nevada (4 hours tested)
    - 2024 - Lightning-Induced CSST Fire Claims and Litigation, IAAI 2024 International Training Conference, Las Vegas, Nevada (2 hours tested)
    - 2023 - ITC Understanding Fuel Gas Codes, IAAI 2023 International Training Conference, Cherokee, North Carolina (2 hours tested)
    - 2022 - 40-Hour Fundamentals of Fire Investigation, IAAI 2022 International Training Conference, Jacksonville, Florida (40 hours tested)
    - 2022 - Alternative Fuel Vehicles, IAAI, CFITrainer.net module (3 hours tested)
    - 2019 - International Fire, Arson & Explosion Investigation Training Program, National Association of Fire Investigators, Seattle, Washington (28 hours tested)
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- 2019 - Investigation of Gas and Electric Appliance Fires, Fire Findings, Benton Harbor, Michigan (30 hours tested)