

Ryan W. Grimm | Team Leader Forensics - Atlantic
P. Eng., CFEI, CVFI, WETT

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Professional Summary:



Ryan Grimm is a well-rounded professional engineer that is solution driven and has a vast array of experience in design in the manufacturing sector. Ryan has provided engineering services for machine design, below the hook lifting devices, overhead lifting equipment and project management. With several years of field experience, Ryan has a practical hands-on approach to solving problems.

To compliment EFI Global Canada forensic services Ryan has undergone extensive training in the field of Fire Origin and Cause Determination. His strong mechanical background and comprehensive training in Traffic Accident Reconstruction and modelling software make him a solid and diverse resource that clients can depend on for accurate and practical solutions.

Project Experience:

- Provide comprehensive examinations of structures, vehicles, and machinery which have experienced a failure or have been involved in a fire to determine the origin and cause of the fire/failure. These services also include complete file reviews and analysis of data provided by other experts to identify any omissions or inaccuracies.
- Provide services in the field of Traffic Accident Reconstruction for the insurance and legal communities. These services include: scene measurements and documentation; review of witness statements; data analysis and reconstruction of events; as well as file reviews and preparation of expert opinion reports.
- Specialize in mechanical systems and failure analysis using practical knowledge, engineering theory and calculations in combination with the use of three-dimensional solid modelling and finite element analysis.

In addition to Forensic Engineering Services, responsibilities include the following:

- Provide professional engineering services in the area of Finite Element Analysis and review of safety factors for mechanical equipment. These services include the review of existing designs, simulations, and calculations to determine design safety factor and design modifications to maintain proper safety factors at increased safe working loads.
- Perform mechanical failure analysis for mechanical systems in order to determine the root cause of a failure and provide feedback for design modifications for machinery

- industrialization.
- Continuously provide engineering services to the automotive industry to design equipment and manage the installation of equipment for capital projects, successfully meeting project deadlines and budgets.
 - Effectively coordinate with safety and ergonomic specialists during the design process to better protect equipment operators from workplace injuries.
 - Coordinate with various engineering disciplines to design, manage and install various types of equipment, including but not limited to: material handling systems; below the hook lifting devices; overhead cranes; and other process specific manufacturing equipment.

Career Development:

<u>Asbestos Awareness – Webinar</u> All-Tech Services Limited	May 25, 2021
<u>Relationship Sales - Webinar</u> Insurance Institute - Facilitator: Melanie Needham, FCIP, CRM	June 11, 2019
<u>UAV/UAS Ground School & ROC-A Certification</u> AeroVision Canada Inc., Halifax, Nova Scotia	April 26 – 28, 2017
<u>Contract Law and OH&S and the Engineer</u> Engineers Nova Scotia	April 22, 2016,
<u>SolidWorks 2D Simplification and Submodeling - Webinar</u> Javelin Technologies	April 6, 2016,
<u>SolidWorks 2011 Simulation Essentials</u> Javelin Technologies, Dartmouth, Nova Scotia	August 15 – 17, 2011
<u>Solidworks Evolution 2006 to 2009</u> TPM – The Print Machine, Granton, Nova Scotia	September 22, 2010

Failure & Fire Investigation Courses:

<u>IAAI CFITrainer.net Training Modules</u>	December 2020 – January 2021
<ul style="list-style-type: none"> • Basic Electricity (1/7/2021) • Critical Evaluation and Testing of Commonly Reported Accidental Causes (1/11/2021) • Digital Photography and the Fire Investigator (1/12/2021) • Fire Chemistry (1/12/2021) • Emerging Technologies in Fire Investigation (1/15/2021) • Documenting the Event (1/18/2021) 	<ul style="list-style-type: none"> • Fire Flow Analysis (1/18/2021) • Explosion Dynamics (1/19/2021) • Charting Your Career Path In Fire Investigation (1/22/2021) • Effective Investigation and Testimony (1/22/2021) • Ethics and the Fire Investigator (1/22/2021) • Preventing Occupational Exposures to Carcinogens at the Fire Scene (12/18/2020)

SITE Basic Inspection (Recertification Course & Examination) September 30, 2019
WET-NS - Wood Energy Technicians of Nova Scotia, Lower Sackville, NS

International Training Conference April 9 – 14, 2017
International Association of Arson Investigators, Las Vegas, Nevada

- The Impact of Ventilation on Room Fires in Full-Scale Structures
- Statement Analysis: Truth & Lies Revealed
- Fatal Fire Investigation
- Commercial Motor Vehicle & Heavy Equipment Fires
- The Use of Damage in Fire Investigation
- Experimental Results from a Series of Eight Laboratory Controlled Compartment Fires
- Metallurgical Analysis for Fire and Explosion Investigation
- Non-Destructive Post Fire Survey of Electrical Wiring for Fire Origin Determination
- Fire Protection Systems & Fire Investigation

ISFI 2016 – International Symposium on Fire Investigation September 12 – 14, 2016
National Association of Fire Investigators, Scottsdale, Arizona

Large Loss Fires - Managing Complex Fire Investigations (Webinar) July 26, 2016,
National Association of Fire Investigators

Increasing Fire Investigator Awareness on Potential Alternative Fueled Vehicles (AFV) Safety Hazards – Live Online Training November 19, 2015
National Fire Protection Association (NFPA)

National Fire, Arson & Explosion Investigation Training Program March 9 – 12, 2015
National Association of Fire Investigators, Dallas, Texas

IAAI CFITrainer.net Training Modules 2014 through 2015
International Association of Arson Investigators (IAAI) - CFITrainer.net (online)

- A Ventilation-Focused Approach to the Impact of Building Structures and Systems on Fire Development (01/27/2015)
- Process of Elimination (01/27/2015)
- Arc Mapping Basics (11/07/2014)

ISFI 2014 - International Symposium on Fire Investigation September 22 - 24, 2014
National Association of Fire Investigators, Hyattsville, Maryland

SITE Basic Inspection, Woodburning Systems, and Code Compliance April 23 - 28, 2014
WET-NS - Wood Energy Technicians of Nova Scotia, Lower Sackville, NS

<u>Certified Vehicle Fire Investigator (C.V.F.I.) Training Program</u> National Association of Fire Investigators, Lexington, Kentucky	September 30 - October 3, 2013
<u>Documenting the Fire Scene: A Practical Approach Based on NFPA 921-2011 (Webinar)</u> International Association of Fire Investigators, Sarasota, Florida	August 29, 2013
<u>Myths and Realities about Dust Explosions</u> Engineers Nova Scotia, Halifax, Nova Scotia	March 5, 2013
<u>Annual Training Conference</u> International Associate of Arson Investigators, Dover, Delaware	April 23 – 27, 2012
<ul style="list-style-type: none">• ARC Mapping Update• Arson-for-Profit• Burn to Learn• Elevated Fires• Scale Model Testing• Truth, Fact & Opinion• Understanding NFPA 921 & 1033• Ventilation Effects on Fire Development	
<u>Expert Vehicle Fire Investigation</u> International Associate of Arson Investigators, Fredericton, New Brunswick	June 8, 2011
<u>National Seminar on Fire Analysis Litigation</u> National Association of Fire Investigators, Sarasota, Florida	August 5 – 6, 2010
<u>Advanced Fire, Arson, & Explosion Investigation Training Program (C.F.E.I. Program)</u> National Association of Fire Investigators, Sarasota, Florida	August 2 – 4, 2010
<u>Computer Fire Modeling</u> National Association of Fire Investigators, Sarasota, Florida	August 1, 2010
<u>Gas and Electric Appliances</u> Fire Findings, Benton Harbor, Michigan	November 10 – 13, 2009
<u>Solid Fuel Burning Appliances</u> Fire Findings, Benton Harbor, Michigan	October 28 – 30, 2009
<u>Introduction to D-SLR Photography</u> Bridgewater Photo & Art Supply, Bridgewater, Nova Scotia	October 16 - 17, 2009
<u>Forensic Fire Scene Investigation Seminar</u> Metro Rural Fire Forensics & Contrast Engineering Limited, Halifax, Nova Scotia	October 15 – 16, 2009

Traffic Accident Reconstruction Courses:

CATAIR Annual General Meeting & Training Conference	September 10 - 12, 2012
<ul style="list-style-type: none">• Human Factors/Visibility• The Anatomy of a Typical Pedestrian Crash• Photogrammetry for Accident Reconstruction• Crash Data Retrieval (CDR) Update	

- Rollover Tests & UAVs

Crash Investigation 1 – Online Northwestern University, Evanston, Illinois	March 2012
Event Data Recorder Use in Traffic Accident Reconstruction Institute of Police Technology and Management, Fredericton, New Brunswick	September 12 – 16, 2011
Crash Data Retrieval – Analyst Collision Safety Institute, Toronto, Ontario	March 23 – 26, 2010
Crash Data Retrieval – Technician Collision Safety Institute, Toronto, Ontario	March 22, 2010
Traffic Accident Reconstruction Seminar CATAIR, Halifax, Nova Scotia	September 14 to 18, 2009
PC Crash – Expert Course MEA Forensic, Vancouver, British Columbia	August 27 & 28, 2009
PC Crash – Essentials Course MEA Forensic, Vancouver, British Columbia	August 25 & 26, 2009

Professional Experience:

<u>President</u> Wentzell Engineering Limited	June 2018 – September 2021
<u>Mechanical Engineer</u> Wentzell Engineering Limited	April 2007 – June 2018
<u>Mechanical Engineering Co-op</u> Weyerhaeuser Company	May – August 2006 September – December 2005
<u>Mechanical Engineering Co-op</u> Michelin North America (Canada) Inc.	January – April 2005
<u>Summer Student Designer</u> High Liner Foods Inc.	May – August 2004 May – August 2003

Education:

- Bachelor of Engineering, Dalhousie University, Halifax, Nova Scotia (Mechanical Engineering)
- Diploma in Engineering, Acadia University, Wolfville, Nova Scotia

Affiliations:

- Association of Professional Engineers & Geoscientists of New Brunswick
- Association of Professional Engineers of the Province of Prince Edward Island
- CATAIR (Canadian Association of Technical Accident Investigators and Reconstructionists)
- CPSA (Canadian Professional Sales Association)
- Engineers Nova Scotia (formerly APENS – Association of Professional Engineers of Nova Scotia)
- IAAI (International Association of Arson Investigators)
- IAFI (International Association of Fire Investigators)
- NAFI (National Association of Fire Investigators)
- Professional Engineers & Geoscientists Newfoundland & Labrador
- Wood Energy Technology Transfer Inc. - WETT