

Alexa Grittani

P.Eng., CFEI, CVFI, M.A.Sc.

Mechanical Engineer

OFFICE

Burlington

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CONTACT

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Alexa is a Mechanical Engineer, Certified Fire and Explosion Investigator and Certified Vehicle Fire Investigator. She has a Bachelor's degree in mechanical engineering from the University of Waterloo and a Master's degree in mechanical and industrial engineering from the University of Toronto. She has attended and investigated over 300 fire scenes, including over 150 vehicle fires.

EDUCATION

University of Toronto

M.A.Sc. Mechanical and Industrial Engineering

Thesis: CFD modelling of evaporator pumps experiencing CaCo₃ scaling

Toronto, Ontario, Canada

2020

University of Waterloo

B.A.Sc. Mechanical Engineering, with Distinction

Waterloo, Ontario, Canada

2018

PROFESSIONAL REGISTRATION & LICENSING

- Professional Engineers Ontario (PEO)

CERTIFICATIONS

- Certified Fire and Explosion Investigator (CFEI)
- Certified Vehicle Fire Investigator (CVFI)

PROFESSIONAL EXPERIENCE

Mechanical Engineer

OCI Group (Formerly Origin and Cause Incorporated)

Burlington, ON

January 2022 – Present

- Fire investigations, failure analysis, and engineering investigations in the mechanical field for the insurance community, legal profession, and manufacturers
- Vehicle fire investigations, including passenger vehicles, transport trucks, transit buses, off-road heavy equipment, forestry equipment, and farm equipment
- Dryer fire investigations and other various large and small appliance examinations
- Structure fire investigations, including residential and commercial properties

Fire Investigator

RocMar Forensics

Mississauga, ON

March – November 2021

- Determined the origin and cause of losses and identified any potential third-party responsibility for subrogation potential
- Documented and photographed fire scenes and associated evidence
- Removed debris, reconstructed fire scenes, identified and properly collected evidence for testing and/or storage

- Prepared technical report specific to the investigation

Accident Reconstruction Analyst

Walters Forensic Engineering Inc

Toronto, ON

May – August 2017

- Identify and analyze contributing factors in motor vehicle accidents
- Use Crash Data Retrieval software to download and analyze vehicles' black boxes
- Modeled accident scenarios in PC Crash
- Drafted analytical reports for court proceedings

Mechanical Engineering – Hardware, Media Handling

NCR

Waterloo, ON

September – December 2016

- Design, analysis, and development of Automated Teller machines
- Modeled prototypes in SolidWorks to 3-D print and test
- Redesigning modules based on field performance, relative to requirements
- Hands on fabrication and testing
- Torque testing units from field to troubleshoot bad actors

Signals Engineering Assistant

Toronto Transit Commission

Toronto, ON

May – August 2015, January – April 2016

- Analyzed machines to determine root cause of failure
- Updated electrical drawings in MicroStation for existing systems
- Assisted with the design for future switch monitoring layouts