

HEATHER AITKEN, B.Sc., B.Eng., E.I.T.

647-466-2826 ▪ aitkenh@gmail.com ▪ <https://ca.linkedin.com/in/heather-aitken-66aaa963>

March 28, 2018

Stephanie d'Obrenan
40 University Avenue, Suite 800
Toronto, Ontario
M5J 1T1

Dear Ms. d'Obrenan,

Please consider my application for the Junior Associate position within your collision reconstruction group. I believe I am a qualified candidate for this position due to my consulting and testing experience, ability to interact with clients in verbal and written formats, attention to detail, and curious nature. I have a unique background fitting of this position, and hope you will recognize the potential.

I have completed degrees in Human Kinetics and Mechanical Engineering; the former providing development in written and verbal communication skills and an understanding of human anatomy and physiology. I have thrived in my previous and current workplaces because I can relate to and communicate with many types of people, including non-engineers, regarding technical topics.

My current role involves management of the design changes being applied to the future Eglinton Crosstown Light Rail Vehicle. As a consultant representing the customer and working in the client office, I have daily interactions with customer engineers and management on the progression of vehicle testing and design. I review vehicle standards, safety considerations, and contract, compatibility and lifespan requirements. I also participate in testing and troubleshooting of the vehicles at the supplier facility. Prior to this role, I was the project coordinator and redesigned the team's entire suite of documentation management tools and practices. I gained exposure to legal documentation and explaining technical issues to lawyers upon the client entering a legal dispute with the supplier.

Prior to joining CH2M, I was part of Pratt & Whitney's developmental engineering department, where I simultaneously managed the build and test of multiple experimental jet engines. This involved writing clear instructions to the shop floor and testing groups, participation in testing, troubleshooting of technical issues, self-managed scheduling, and the careful review of failed tests to identify engine faults.

I am a fast learner which has enabled me to work in different industries. Each position has required and further developed my communication skills, analytical abilities, and self-directed project management experience. I would like to apply this knowledge as a Junior Associate in collision reconstruction. I look forward to hearing from you.

Thank you for your time,

Sincerely,



Heather Aitken

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SUMMARY:

- **Organized & Detail-Oriented** – Established through the development and management of all program documentation tracking matrices, leading to my role as fact-checker for Metrolinx's legal team (vehicle dispute resolution board), and as the team leader of the vehicle design change team.
- **Self-Motivated** – Demonstrated through the successful completion of two simultaneous work assignments through the spring of 2017, the continuous search for improvements in my work, night-school attendance of various courses, and volunteer work as a charitable foundation director.
- **Communicator** – Excellent written and verbal communication skills developed through the writing of engineering program management documents with the Metrolinx LRT vehicles team, and testing plans and reports with Pratt & Whitney's development engineering team.

EMPLOYMENT HISTORY:

Manufacturing Engineering Specialist / Design Change Team Lead **August 2017 - present**
CH2M/Jacobs (consulting to Metrolinx on the Eglinton Crosstown Project), Toronto, ON

- Reviewed proposed engineering changes for safety, intersystem compatibility, and compliance with technical specifications and applicable standards.
- Redesigned and managed the design change database, led weekly meetings with the client and supplier to review changes, and managed the design change team assignments and performance.
- Reviewed system- and vehicle-level test procedures and reports for clarity and compliance with technical specifications and standards, witnessed tests to verify vehicle performance outcomes.
- Reviewed engineering drawings for clarity, accuracy, and alignment with approved design changes.

Junior Vehicle Engineer (EIT) / Project Coordinator **May 2016 – August 2017**
CH2M/Jacobs (consulting to Metrolinx on the Eglinton Crosstown Project), Toronto, ON

- Drafted letters sent on behalf of the Owner's Engineer, and was regularly asked to review and modify design and legal documentation for technical accuracy, spelling, grammar, and readability.
- Participated in dispute resolution board strategy meetings, provided data analysis to back up legal claims, and fact-checked legal documentation for accuracy.
- Managed program documentation submittal and review timelines for all engineering documents.
- Developed and maintained numerous documentation tracking files for better program organization.

Technical Writer / Project Coordinator **March 2017 – July 2017**
CH2M/Jacobs (consulting to Metrolinx on the Hydrogen Rail Vehicle Program (Hydrail)), Toronto, ON

- Assisted in the research and writing of a technical pre-feasibility report on the use of Hydrogen Fuel Cells for powering electric propulsion commuter rail vehicles.
- Wrote a documentation management plan for the Hydrogen Fuel Cell Program and implemented documentation management tools and strategies.

Achievements: Chosen from thousands of CH2M colleagues worldwide to attend an international leadership summit (2016); Recognition Award for greatly improving project documentation management through the creation/improvement of new tracking methods and tools (2017).

Tools Used / Skills Developed: Technical writing, verbal communication and presentation, project management, data management, leadership of a small team, Microsoft Suite, ProjectWise

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Development Engineering Intern

May 2014 – August 2015

Pratt & Whitney Canada, Mississauga, ON

- Organized and managed the assembly, test and disassembly of various small turbofan jet engines.
- Wrote technical instructions and summary reports for the assembly, test and disassembly stages.
- Ran update meetings with project engineers, analysts and management on engine statuses.
- Assumed leadership role as lead development engineer for the first build of a tested mock-up PW800 engine. Completed project two weeks ahead of schedule and under budget.

Achievements: Pratt & Whitney Canada Recognition Award for early completion of special project (2014).

Tools Used / Skills Developed: Technical writing, project management, verbal communication and presentation, leadership of a small team

Engineering Summer Student

June - August 2013

Bombardier Transportation, Mississauga, ON

- Aided in the conceptualization of TrackSafe, a safety software system to be used at rail maintenance facilities. Wrote a functionality requirements document and produced layouts of screen shots.
- Utilized databases to verify maintenance kit contents for the TTC Rocket subway vehicle.

Achievements: Aided in development of TrackSafe (IET Innovation Award winner, 2013)

Tools Used / Skills Developed: Microsoft Suite, Project Management, verbal communication

EDUCATION:

Bachelor of Engineering: Mechanical Engineering - CGPA 3.62

2011 – 2016

Ryerson University, Toronto, Ontario

- Key Courses: Mechanical Design, Finite Elemental Analysis, Project Management, Human Factors
- Certifications: Certified SolidWorks Associate (CSWA ID C-E6J2RU2M4S)
- Capstone design project: design of a new automotive door seal precision grinder

Achievements: Dean's List (2012 - 2016), Dugald Cameron Memorial Award (2015), Women's Transportation Seminar Scholarship (2015), BMO Diversity Scholarship (2013), Aileen Clark Lambie Award (2013), Norman Esch Engineering Innovation & Entrepreneurship Award (2013), Platinum Athlete Status (2012 – 2013), First Place at Ryerson Engineering Toastmasters Business Pitch Competition (2013)

Tools and Technology Used: SolidWorks, ANSYS APDL, DFM, CMM (pcDMIS), basic metrology (GD&T)

Bachelor of Science: Human Kinetics

2005 – 2010

University of Ottawa, Ottawa, Ontario

EXTRACURRICULAR & INDUSTRY ACTIVITIES:

Director & Secretary to the Board; WTS Canadian Education Foundation	2017 – present
George Brown Welding I Course – Theory and Practical	2018
Centennial College Small Engines Course, Automotive Brakes Course – Theory and Practical	2017
Machine Shop Practical Course (How to use metal lathes, mills, GD&T)	2013
Women in Eng. Commissioner, RU Leaders Student Committee Member – Ryerson University	2013 – 2014
Ryerson University Varsity Badminton Team Member	2011 – 2013
Hockey player, cyclist and cycling advocate, learner, tinkerer	Always