



# Julia Wolfe

 905-525-9140  
 wolfej@mcmaster.ca  
 [Linkedin.com/in/wolfej](https://www.linkedin.com/in/wolfej)  
 [Wix.com/wolfej](https://www.wix.com/wolfej)

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## HIGHLIGHTS OF QUALIFICATIONS

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- Enrolled in level 4 of the 4-year Materials Engineering co-op program at McMaster University
- Excellent problem solving and analytical skills developed while completing a co-op term as a Quality Assurance Engineer at the Ford Motor Company
- Outstanding leadership, teamwork and communication skills strengthened through involvement with Engineers Without Borders, McMaster Baja Team, and the Women's Volleyball team
- Accustomed to laboratory procedures, safety and hazard precautions through various lab work experiences

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## EXPERIENCE

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### Quality Assurance Engineering Co-op Ford Motor Company, Oakville ON

May – Aug 2017

- Utilized the Diagnostic Engineering Tool (DET) to streamline the trial verification process of quality materials and products yielding an 11% increase in process improvement
- Coordinated with PVT and mechanical engineers to help enhance standardized processes to design and develop new vehicles resulting in a 16% increase of overall vehicle quality
- Constructed and maintained 200+ spreadsheets displaying data and technical reports that pertained to design quality and product liability
- Assisted in planning, developing and administering software test plans to detect and diagnose error and bugs for the company's latest touch screen navigation interface

### Academic Tutor McMaster Engineering Society (MES), Hamilton ON

Jan 2016 – Present

- Planned and conducted activities for a balanced program of instruction, demonstration, and work time that provided students with opportunities to observe, question and investigate
- Generated discussion questions to stimulate topic conversations between students and maintained records of students' progress in a secure and confidential manner
- Researched and recommended useful resources such as textbooks and other learning materials that could aid the students in their learning

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## EDUCATION

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### Bachelor of Engineering, Materials Engineering McMaster University, Hamilton ON

Class of 2019

- Achieved a cumulative grade-point average of 10.6 on a 12-point scale (88%)
- *Relevant Courses:*
  - Modern Iron & Steelmaking, Materials Production, Measurement & Communication, High Temperature Materials Production, Mechanical Behaviour of Materials, Statistical Methods for Materials Engineers, Applied Thermodynamics

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## TECHNICAL SKILLS

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- Software:**
- Proficient with Microsoft Office Software (Word, Excel, PowerPoint, Outlook)
  - Skilled in Minitab, MATLAB, Autodesk Inventor, Python, PIPE-FLO
- Laboratory:**
- Experienced in preparing metallography samples (cutting, mounting, and polishing)
  - Ability to identify different phases existing in a metal sample using microscopy
  - Familiar with performing mechanical testing on metal samples such as hardness test and tensile test
  - Experienced in using 3D printers
- Safety:**
- WHMIS, Standard First Aid, and CPR Certified

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## PROJECTS

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### Optimization of Copper Loss in the Extraction Process Grade: 91%

- Constructed flowcharts for the whole copper smelting process and proposed several hypotheses for minimizing the copper loss
- Tested each theory using mathematical calculations and the most suitable theory was discovered through process efficiency comparison

### Failure Analysis of Zinc-Aluminum Alloy Grade: 89%

- Executed various material examination techniques in order to find a valid and logical cause for the fracture of a zinc-aluminum alloy sample

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## EXTRACURRICULAR ACTIVITIES

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### Failure Analysis | McMaster Baja Team Aug – Sept 2017

- Conducted a failure analysis on aluminum wheel hubs to determine why they failed
- Developed skills in sample preparation, metallography, fractography, optical microscopy, material testing, and chemical characterization

### Failure Analysis | Engineers Without Borders Sept 2016 - Present

- Budgeted for a 31-person executive team, with approximately \$20,000 for the full year, by keeping the team up-to-date with monthly account statement
- Leader of the logistics division in a team of 14 people, to plan the Global Engineering Conference with the focus of sustainability at McMaster University for a crowd of 150 people

### McMaster Women's Volleyball Sept 2016 - Present

- Awarded the McMaster University Athletes of the Week for the week of Feb 26, 2018