

Julia Wolfe

905-525-9140
wolfej@mcmaster.ca
linkedin.com/in/JuliaWolfe

Highlights of Qualifications

- 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 & communication skills strengthened through involvement with Engineers Without Borders, McMaster Baja Team, & the Women's Volleyball team
- Accustomed to laboratory procedures, safety, and hazard precautions through various lab work experiences

Education

Bachelor of Engineering, Materials Engineering
McMaster University, Hamilton ON

- 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

Experience

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

- 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

- 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

Extracurricular Activities

Failure Analysis

McMaster Baja Racing Team, Hamilton ON

- 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, Hamilton ON

- 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

- Awarded the McMaster University Athletes of the Week for the week of Feb 26, 2021

Projects

Optimization of Copper Loss in the Extraction Process

Grade Received: 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

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

Technical Skills

- 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, & CPR Certified