



# CALLUM McCULLOUGH

Technical Communicator



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Ann Arbor, MI  
Pittsburgh, PA

## Previous Employment

Shop Attendant at Carnegie Mellon, 2021-2022  
Restoration Assistant at Carpentry Plus, 2022  
Auto Detailer at Shadyside Detail, 2022-present

## Communications Experience

Volunteer editor for Freeverse literary magazine, 2018  
Photography published in award-winning Communicator magazine, 2018  
Independent essay, memoir, and technical writing experience, 2019-present  
Composing and presenting CMR design reviews, 2019-2021  
Managing 6-person CMR subsystem team, 2020-2021  
Member of Carnegie Mellon Men's Ultimate Frisbee Social Committee, 2021-2022

## Technical and Personal Skills

Proficient in Solidworks  
Proficient in Python  
Well versed in business software like Slack, Confluence, and JIRA  
Seasoned photographer and graphic designer, familiar with Canon, Nikon and Olympus products, as well as Adobe Creative Suite software and film development  
Very experienced auto technician  
Talented fabricator and machinist  
Sound conversational and writing skills in both English and French  
Responsible, honest, and reliable, whether working in a team or independently  
Strong sense of motivation and a learning-oriented mindset  
Confident and empathetic, always seeking to understand and befriend new people

## Education and Relevant Coursework

### University of Michigan

MATH185/6 - Honors Real Analysis I & II, 2017-2018  
CHEM130 - Introduction to General Chemistry, 2019  
MSE250 - Introduction to Materials Science, 2019

### Carnegie Mellon University, pursued BS in Materials Science and Engineering

15-112 - Advanced Fundamentals of Programming and Computer Science, 2020  
24-101 - Fundamentals of Mechanical Engineering, 2020  
27-201 - Structure of Materials, 2020  
25-215 - Thermodynamics of Materials, 2020  
51-261 - Fundamentals of Communication Design, 2021  
51-831 - Methodologies of Visualization, 2021  
76-292 - Film Production, 2021  
49-300 - Integrated Product Conceptualization, 2022  
24-370 - Engineering Design, 2022  
15-394 - Rapid Prototyping, 2022  
76-261 - Creative Nonfiction, 2022  
60-278 - Portfolio Installation, 2022

## Engineering Experience

### First-year member of Carnegie Mellon Racing (CMR)

Conducted chassis, aerodynamic, and grounded low voltage design reviews, 2019  
Manufactured and tested composite airfoils and grounded low voltage components, 2020

### CMR Braking System Leader

Development leader for Brake Dynamometer, 2020-2021  
Development leader for vehicle braking system, 2020-2021

### Independent Projects

Frame-up restorations of 1975 Kawasaki KZ400, 1986 Kawasaki GPZ900, 1984 Honda V65 Sabre  
2007 Triumph Daytona 675 engine rebuild  
Custom 2012 Triumph Bonneville street-tracker build  
BP6D swap into a 1991 Mazda Miata, including writing my own MicroPython VVT controller, all supporting fabrication, as well as 5 years worth of other mods, maintenance and repairs  
1989 F150 E4OD transmission rebuild (my current daily)  
Camper conversion of a 2003 Silverado, including modular sleeping/storage and separate electrical system  
Built a custom single-cookie oven with a MicroPython controller  
"Frame-up" restoration of a vintage espresso machine  
Lots of custom cnc-routed furniture, including tables, chairs, shelves, etc  
Currently designing a tabletop CNC mill