

Alex Hughes

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EDUCATION

Ph.D. in Materials Science, Colorado School of Mines
In progress

Expected 2028

B.S. in Materials Science and Engineering, Michigan State University

May 2021

GPA: 4.0/4.0

Manufacturing concentration | Honors College | Deans List
Capstone: Failure Analysis of Tortionally Loaded Doorknob Cylinder
Advisor: Dr. Martin A. Crimp

B.A. in Russian Language, Michigan State University

Honors College | Deans List

Capstone: History of Homophobia in Russia
Advisor: Dr. Jason Merrill

RESEARCH EXPERIENCE

Professorial Assistant, Michigan State University
Department of Chemical Engineering and Materials Science

Sep. 2017 – May 2019

- Conducted EBSD, backscatter electron, and secondary electron scans by using a Tescan MIRA3 to examine Nimonic 75, pure nickel, and pure titanium.

PAPERS AND PRESENTATIONS

- Poster: “Size effect of creep in Nimonic 75” at Mid-Michigan Symposium for Undergraduate Research, Jul. 2018. Lead researcher: Dr. Martin Crimp
- Presentation: “Depth of Slip Transfer in Titanium” at University Undergraduate Research and Arts Forum, Apr. 2018. Lead researcher: Dr. Martin Crimp
- Presentation: “Absolute and Relative Pitch: Factors into the Origin and Acquisition” at IMSAloquium, Apr. 2016. Advisor: Emily Sites

GRANTS AND AWARDS

- CoorsTek Fellowship
- MSU Board of Trustees Award for Academic Excellence (2021)
 - For maintaining a 4.0 GPA for the first 7 semesters at MSU
- Dean’s List
 - 8 Semesters
- Magna Cum Laude

LEADERSHIP EXPERIENCE

President

Jun. 2019 – Jun. 2020

Treasurer

Jun. 2018 – Jun. 2019

Michigan State University Crew Club

Aug. 2017 – May 2021

- Lead meetings of the 6-person executive board, hired coaches, scheduled races, coordinated driving and sleeping arrangements, lead warm-up and cool down, and created and maintained a budget of \$60,000.

Team Captain

Nov. 2016 – Mar. 2017

Illinois Mathematics and Science Academy Swim Team

Nov. 2014 – Mar. 2017

- Coordinated practice times, lead practices, and maintained morale throughout the swimming season.

Wing Guide

Illinois Mathematics and Science Academy

Aug. 2015 – Jun. 2017

- Coordinated move-in day, community rules, events, and decorations for a community of 18 people.

OTHER WORK EXPERIENCE

New Models Launch Engineer, Ford Motor Company

Nov. 2021 – Jun. 2023

On contract through Kelly Services

Nov. 2021 – Nov. 2022

Salary

Nov. 2022 – Jun. 2023

- Managed containment of arising issues, managed functional and quality testing for pre-production vehicles to delivery timeline, and compiled and presented critical launch metrics to launch leadership using Microsoft Excel and internal Ford software.

LANGUAGES

- English – fluent, native
- Russian – high intermediate
 - Advanced Russian Language and Area Studies Program (Summer 2020, canceled due to COVID)
 - Middlebury Language Schools (Summer 2019)
 - Exchange between Illinois Mathematics and Science Academy and Zhores Alferov Physical Technical High School (Spring 2017)