

JAMES A. CARZON

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EDUCATION

Doctorate of Philosophy Carnegie Mellon University. <i>Pittsburgh, PA.</i> Statistics.	2021 - Present
Bachelor of Science University of Michigan, Dearborn. <i>Dearborn, MI.</i> Major in Mathematics and Philosophy with Honors. Minor in Applied Statistics. Certificates in Mathematics for Finance and Writing. Cumulative GPA: 4.00.	2017 - 2021

PROFESSIONAL EXPERIENCE

REU Site in Mathematical Analysis and Applications University of Michigan, Dearborn. <i>Dearborn, MI.</i> A Research Experience for Undergraduates program. Project: <i>Classifying Toric 3-Fold Codes of Dimensions 4 and 5.</i>	Summer 2020
Big Data Summer Institute University of Michigan. <i>Ann Arbor, MI.</i> A Summer in Biostatistics program. Project: <i>Classification of Drug Effectiveness using Bimodal Normal Mixture Models.</i>	Summer 2019
Lear Open Innovation Competition Lear Corporation. <i>Southfield, MI.</i> An engineering research project competition. Project: <i>Superhuman Safety Seat quick repositioning system.</i>	Winter 2018

RESEARCH TALKS

Young Mathematicians Conference The Ohio State University. [Virtual] <i>Columbus, OH.</i> Thirty-minute research talk.	2020
Summer Undergraduate Michigan Mathematics Research (SUMMR) Conference Michigan State University. [Virtual] <i>East Lansing, MI.</i> Thirty-minute research talk.	2020
Symposium on Big Data, Human Health and Statistics University of Michigan. <i>Ann Arbor, MI.</i> Poster presentation.	2019

PRESENTATIONS

<i>SURE Kickoff</i> University of Michigan - Dearborn Summer Undergraduate Research Experience. [Virtual] <i>Dearborn, MI.</i>	18 May 2021
<i>CASL Undergraduate Research panel</i> College of Arts, Sciences and Letters. [Virtual] <i>Dearborn, MI</i>	8 April 2021
<i>Poster workshop</i> University of Michigan Undergraduate Research Symposium. [Virtual] <i>Ann Arbor, MI.</i>	16 March 2021

<i>Abstract workshop</i> University of Michigan Undergraduate Research Symposium. [Virtual] <i>Ann Arbor, MI.</i>	23 February 2021
<i>Honors Information Session panel</i> University of Michigan - Dearborn Honors Program. <i>Dearborn, MI.</i>	20 February 2020
<i>Honors Orientation mentorship presentation</i> University of Michigan - Dearborn Honors Program. <i>Dearborn, MI.</i>	3 September 2019
<i>Honors Information Session panel</i> University of Michigan - Dearborn Honors Program. <i>Dearborn, MI.</i>	26 March 2019
<i>Honors Information Session panel</i> University of Michigan - Dearborn Honors Program. <i>Dearborn, MI.</i>	14 March 2019
<i>Writing Center class visit</i> University of Michigan - Dearborn Writing Center. <i>Dearborn, MI.</i>	28 February 2019
<i>Honors Information Session panel</i> University of Michigan - Dearborn Honors Program. <i>Dearborn, MI.</i>	21 February 2019
<i>Honors Orientation panel</i> University of Michigan - Dearborn Honors Program. <i>Dearborn, MI.</i>	27 August 2018
<i>Honors Information Session panel</i> University of Michigan - Dearborn Honors Program. <i>Dearborn, MI.</i>	28 March 2018
<i>Honors Information Session panel</i> University of Michigan - Dearborn Honors Program. <i>Dearborn, MI.</i>	20 March 2018

PUBLICATIONS

Academic Articles

- Braun, T., Carzon, J., Gorham, J., Jabbusch, K., *Classifying Toric 3-Fold Codes of Dimensions 4 and 5* (submitted)

Fiction

- *Furtive Landscapes* (Book in preparation)
- “Ugbert Ugberto the Utility Monster”, *Lyceum Literary & Fine Arts Journal*, Fall 2020 (accepted)
- “Entering a Transportation Hub”, *University of Michigan - Dearborn Writing Awards*, Fall 2017

PROJECTS

The Borsuk-Ulam Theorem and its Implications A senior capstone project for MATH 492: Introduction to Topology. Paper, 11 pages; course lecture.	2020
In Defense of Frege’s Account of Numbers A senior capstone project for PHIL 340, Analytic Philosophy. Paper, 9 pages.	2020
MOOC Success Trends on edX A senior capstone project for STAT 440, Design and Analysis of Experiments. Paper, 21 pages; presentation.	2020
Dada, According to the Laws of Arp: An Analysis of a Chance Collage An Honors capstone project for HONS 304, Western Culture IV: Modern Era. Paper, 17 pages; course lecture.	2019

Codeswitching as a Racist Phenomenon in <i>BlacKkKlansman</i>	2019
A research project for LING 383, American English.	
Paper, 20 pages; presentation.	
Using Writing Center Data for Decision Making	2018
A research project for COMP 475, Supporting Literacies.	
Paper, 14 pages; presentation.	

WORK

University of Michigan

- Organizing Committee Member. *Undergraduate Research Symposium* 2021

University of Michigan, Dearborn

- Math Tutor. *Mathematics Learning Center* 2019 - 2021
- Honors Student Executive Council Member. *Honors Program* 2018 - 2020
- Contributor. *The Michigan Journal* 2018
- Writing Tutor. *Writing Center* 2018 - 2019
- Calculus II Mentor. *Department of Mathematics and Statistics* 2017 - 2018

SERVICE

Math Club junior colloquium 2020 - 2021

I organized a guest speaker series with the intention of helping to expose organization members to possible research topics and careers and programs in the mathematical sciences and allied fields such as geographical information systems and biostatistics.

Math Club student video presentations 2020 - 2021

During my role as President of the Math Club, a peer and I started a series of video presentations on recreational topics to share with the wider community of math students which became a popular way to keep students engaged in department activities while studying remotely.

Math Club problem solving workshop 2019 - 2021

As a supplement to coursework for students participating in regional and national mathematics competitions in our department, I designed a problem solving workshop as part of the math club's programming. This involved writing session notes and presenting solutions to challenging problems to fit recurring competition themes during the workshop sessions.

Honors Program mentoring 2018 - 2021

In my capacity as a leader outside of the classroom for the Honors Program, I organized a student mentoring program for incoming freshmen and recruited upperclassmen to serve. I've spoken at orientation and informational events in front of audiences of over one hundred people on numerous occasions.

Writing Center data analytics 2018 - 2019

To serve as a practical component to the certificate in writing, I used classification and multiple regression techniques to optimize tutor schedules to match expertise to patterns in students' needs. This project involved data collected for each appointment at the U of M - Dearborn Writing Center from the last ten years.

Data Science Association founding 2018 - 2019

I was a founding member of the Data Science Association student organization, through which I helped to facilitate competitions and give presentations on new topics in the field such as biostatistics and machine learning algorithms.

AWARDS

Academic

- Chancellor’s Medallion, College of Arts, Sciences, and Letters. 2021

This award is given to two graduating students each spring and fall term to recognize “outstanding quality of character, vitality, intellect, integrity and academic record.”

- James B. Angell Scholar, Eight Terms. 2017 - 2021

This award is conferred to students with no grades lower than an A- in a given term.

- William J. Branstrom Freshman Prize. 2017

This freshman GPA award is conferred to students in the top five percent of their class with 14+ credits.

- Lear Open Innovation Challenge Peer Award. 2018

This award was part of the Lear Corporation Open Innovation engineering competition.

- Chancellor’s Scholarship Award. 2017

This full tuition freshman scholarship is awarded for academic merit.

Mathematics

- UM-Dearborn Mathematics Honors Scholar. 2021

- Carl Rasmussen Award for Excellence in Mathematics. 2020

- Mathematics Competitions:

- Michigan Autumn Takehome Challenge, 1st Place. 2020

- Lower Michigan Math Competition, 1st Place. 2020

- William Lowell Putnam Mathematical Competition, 13 points. 2019

- Michigan Autumn Takehome Challenge, 4th Place. 2019

- Lower Michigan Math Competition, 3rd Place. 2019

- William Lowell Putnam Mathematical Competition, 10 points. 2018

Writing

- U of M Dearborn Scientific Writing Award, 3rd Place. 2019

Title: *Using Writing Center Data for Decision Making*

- U of M Dearborn Creative Nonfiction Award, 3rd Place 2019

Title: *Putnam Up: A Small University’s Fight Against a Giant Exam*

- U of M Dearborn Bill Linn Fiction Prize, 1st Place 2018

Title: *Entering a Transportation Hub*

- U of M Dearborn Honors Writing Award, 2nd Place 2018

Title: *Interpretations of Suffering and Fate Through Biblical and Greek Tragedy*

SKILLS

Programming

- R (strong)
- LaTeX (strong)
- Sage (moderate)
- Python (moderate)

- Linux (beginner)
- Matlab (beginner)
- C++ (beginner)

CONFERENCE ATTENDANCE

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| – University of Michigan Undergraduate Research Symposium, Ann Arbor, MI | 2021 |
| – Young Mathematicians Conference, Columbus, Ohio | 2020 |
| – Summer Undergraduate Michigan Mathematics Research (SUMMR) Conference, Lansing, MI | 2020 |
| – Joint Mathematics Meeting, Denver, CO | 2020 |
| – Midwest Several Complex Variables Conference, Dearborn, MI | 2019 |
| – MathFest, Cincinnati, OH | 2019 |
| – Symposium on Big Data, Human Health and Statistics, Ann Arbor, MI | 2019 |

COURSEWORK

Mathematical Sciences

Advanced Calculus I* & II*, Real Analysis, Introduction to Abstract Algebra*, Commutative Algebra, Linear Algebra, Algebraic Geometry, Introduction to Topology, Algebraic Topology, Applied Statistics I* & II*, Mathematical Finance, Dynamical Systems, Introduction to Probability, Mathematical Statistics*, Advanced Regression Analysis*, Design and Analysis of Experiments*

Philosophy

Ancient Philosophy, Modern Philosophy, Ethics, Epistemology*, Eastern Philosophy, Marxism, Analytic Philosophy

Other Humanities

Four Trials (History); The African Diaspora in the Atlantic World: Research Seminar (History); Classical and Biblical Traditions (English); Middle Ages, Renaissance, Reformation (English); Narrative Journalism (English); The Age of Enlightenment (Political Theory); American English* (Linguistics); The Modern Era* (Art History); Supporting Literacies (Composition and Rhetoric)

*: Received A+ grade