

Matthew Dowling

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3110 Fairhaven Court, Ann Arbor, MI 48105

EDUCATION

Ann Arbor Huron High School

June 2022

2525 Fuller Road Ann Arbor, MI

GPA: 4.0/4.0

Current sophomore at University of

Current GPA: 3.989/4.0

Michigan College of Engineering, with

(Freshman year GPA)

major declared as CS

GOALS:

- Currently in pursuit of minors in both Math and Philosophy
 - Pursue a hard and rigorous math track for undergrads
 - (Math 297 -> Math 493 -> 494)
- Obtain work in the area of cryptography
- 2:10 or lower Olympic Triathlon

ACADEMICS

- Completed 6-part online course of *Data Analysis with Python: Zero to Pandas* by Jovian (online) 2020-2021 (completion certificate earned)
- High school AP scores: six 5's, one 4
- Computer Science Classes Taken:
 - EECS 280 (programming and data structures) (A)
 - EECS 201 (compsci pragmatics) (A+)
 - Currently Taking: EECS 281 (data structures and algorithms)
 - Currently Taking: EECS 376 (mathematical foundations of compsci)
- Math Classes Taken
 - Math 156 (applied honors calc 2) (A+)

- Math 217 (abstract linear algebra) (A)
- Math 465 (Introduction to Combinatorics) (A+)
- Currently Taking: Math 286 (Honors differential equations)

MISC. ACTIVITIES

- 63rd Science and Engineering Fair of Metro Detroit

Dimensional Analysis of Container Emptying

Using the technique of dimensional analysis along with an experiment, I developed a mathematical formula that predicted the relationship for the time water empties from a cylindrical container, given the starting water height, radius of the cylinder, and radius of the hole.

3rd Place Physics and Astronomy Division; March 2020

WORK EXPERIENCE

Lifeguard Chapel Hill Condominiums, Ann Arbor MI

6/2021-9/2021

Lifeguard position. ~20 hours a week

Michigan Tech Research Institute

6/2022-9/2022

Intern position, worked on coding with the limited knowledge I had of Matlab and R to test different causality algorithms. Also got experience using Mercurial for code repositories. 40 hours a week

University of Michigan Recreational Centers

7/2022-9/2022

Lifeguard position. ~10 hours a week

Michigan Tech Research Institute

5/2023-9/2023

Intern position, worked with my personal instructor on the code of a project which involves mostly robust change detection on multivariate time series data, applied to detecting radio frequency interference. Used Matlab and Mercurial for code repositories . 32-40 hours a week

University of Michigan Department of Naval Architecture and Marine Engineering

5/2023-9/2023

Assistant researcher position, Coded a graphical user interface for PHD student Alexander Monahar to run his simulations. Alex's PHD title is "Enabling Self-Adaptive Health Monitoring Systems on Crewless Vessels via a Network of Tensor Networks". Used Python with the biggest attribute being the Tkinter Module. ~20 hours a week

And will be continuing work for them into the academic year

OTHER AWARDS

- Max E. Tobias Scholarship for University of Michigan 2022
- Highschool athletics:
 - 10 Varsity Letters: 4 Swimming, 2 Cross Country, 2 Water Polo, 2 Track & Field, 3 JV Letters (2 Water Polo, 1 Crew Team). 2 speciality awards given from Cross Country. Water Polo Captain Spring 2022

OTHER HOBBIES

- Chess
- Member of UofM's triathlon club (I give ~5 hrs a week)
 - Races I have done
 - Boilerman 2022 (olympic)
 - Club Nationals 2022 (olympic)