

Jaden Sun

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EDUCATION

University of Michigan

BSE in Computer Science

GPA 3.82

Coursework: Intro to Data Structures and Algorithms, Multivariable and Vector Calculus, Differential Equations, Discrete Mathematics, Applied Linear Algebra, Intro to Probability and Statistics, Intro to Computer Organization

Ann Arbor, MI

May 2024

SKILLS

Proficient: C++

Intermediate: Java, MATLAB, Python

Novice: HTML, SolidWorks

PROJECTS

Intro to Data Structures and Algorithms

Ann Arbor, MI

Zoo Map (Class Project)

December 2021

- Utilized travelling salesperson and minimum spanning tree algorithms to find optimal paths for animals on a zoo map
- Implemented a travelling salesperson heuristic to calculate possible paths 20-30% faster than best case calculations
- Minimum spanning trees were found with 2 constraints that disallows edges between 2 differently marked areas on the map

Programming and Intro to Data Structures

Ann Arbor, MI

Piazza Post Categorizer (Class Project)

April 2021

- Utilized binary search tree and map data structures to store and process over 3,000 training posts and tags
- Developed an algorithm to predict and assign tags to new posts using log-probability and bag of words model
- Collaborated with 1 partner for over 25 hours to achieve up to 95% accuracy when assigning tags to new posts

Engineering 100

Ann Arbor, MI

Analysis of Solar Power (Class Project)

January 2021-May 2021

- Collaborated with 3 other students to create a self-powered solar tracking system that transmits data via bluetooth
- Led the algorithm development which allowed the system to detect and point towards the light source in 5 seconds
- Implemented a system using photodiodes, resistors, and servos to allow for 360 degree detection and movement
- Constructed a baffle system to use difference in light intensities without having each diode on opposite ends of the system

Oakland Schools Technical Campus Northeast

Pontiac, MI

FRC and OCCRA Team #1 Student Design Lead

August 2016-May 2020

- Coordinated weekly meetings with 20 students and 3 mentors to strategize and review designs and progress
- Engineered a robot that could collect and launch 8 dodgeballs over a 4 foot fence in under 10 seconds
- Oversaw weekly learning of physics and coding topics not covered in standard school curriculum
- Placed in the top 4 teams out of 40 other student run, local teams, and was awarded MVP of the season

EXPERIENCE

Rochester Adams Swim and Dive

Rochester Hills, MI

2020 Varsity Team Captain

November 2016-May 2020

- Organized team bonding activities and recruiting events for potential members, adding 8 new swimmers
- Presented to the school booster club about current team status and culture, receiving over 2,000 in additional funding
- Supervised the annual fundraising event and provided a sales strategy which raised over 1,500 in donations
- Won 3 league championship medals and the 2020 league championship overall for the second time in 2 years

SOHO Restaurant

Rochester Hills, MI

Server

July 2021-August 2021

- Initiated new communication methods to increase the average service speed by up to 3 minutes per customer request
- Cooperated with 8 other workers for 12 hour shifts and operated with 2 different language barriers

HONORS

William J. Branstrom Freshman prize

March 2021

University Honors

December 2020 - present

Dean's List

December 2020 - present

OTHERS

Incoming Capital One TIP intern, Atlas Digital Consulting, Michigan Club Swim, UM Autonomy, Alliance Consulting, Fluent in Chinese, Intermediate in German, Assisted in Shopify Website Creation