

Zichun (Jerry) Gao

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EDUCATION

Washington University in St. Louis

McKelvey School of Engineering

Cumulative GPA: 3.93

2x Dean's List

Expected Graduation: May 2027

St. Louis, MO

August 2023 ~ present

River Hill High School

Cumulative Weighted GPA: 4.90

11x Principal's Honor Roll

2x AP Scholar with Distinction

Clarksville, MD

September 2019 ~ May 2023

ACADEMIC & RESEARCH EXPERIENCES

Crime & Social Sentiment Analysis Project

Researcher & Programmer

Remote
January 2022 ~ February 2023

- Extracted crime data from the Howard County Police Department website via Beautiful Soup
- Illustrated visual data through charts & graphs
- Displayed on a website via Flask deployed through Heroku for the audience to deduce trends

Data Labeling Project

Labeler

University of Maryland
November ~ December 2022

- Labeled data while guided by two PhD students for an underwater navigation project by running Python with Tkinter
- Manually selected optimal x & y coordinates (roll & pitch based on a scale of 1 ~ 7) to simulate an underwater bot

Redistricting & Gerrymandering Project

Researcher

Remote
June ~ November 2021

- Reorganized & redrew the boundaries of Maryland's 8 congressional districts using Dave's Redistricting App
- Removed old district shapes & created new districts based on roughly equal population, racial, & ethnic distribution

EXTRACURRICULAR ACTIVITIES

WashU Robotics Club (WURC) Rover Subteam

Software Engineer

Washington University in St. Louis
September 2023 ~ present

- Develop software components e.g. simulation & teleoperation along with six other team members
- Utilize existing open-source packages e.g. Robot Operating System 2 (ROS2), RViz, Gazebo

Future Leaders of McKelvey Engineering (FLOME)

Member

Washington University in St. Louis
February 2024 ~ present

- Bond with fellow members to create meaningful relationships and form a community of aspiring engineers
- Engage in service-based projects to give back to the local community

Maryland Technology Honor Society (MTHS)

MTHS Membership

River Hill High School
October 2021 ~ May 2023

- Attended monthly dinner meetings featuring guest speakers on various topics of careers in STEM

American Computer Science League (ACSL) Intermediate 5 Division

Teamed Competitive Programmer

Remote
September 2021 ~ May 2022

- Completed mathematical & algorithmic multiple-choice questions
- Solved mathematical & algorithmic programming problems using Python
- Competed individually on a team of eight for a total team score

United States of America Computing Olympiad (USACO) Bronze Division

Individual Competitive Programmer

Remote
August 2020 ~ April 2022

- Solved mathematical & algorithmic programming problems using Python & C++
- Analyzed each problem, developed & refined an algorithm, & turned the algorithm into code

COMMUNITY SERVICE & ENGAGEMENT

Volunteens (NGO)

Chief of Technology

Howard County, MD
June 2020 ~ June 2023

- Collaborated with several other officers to serve the needs of the 200+ member organization
- Used WordPress to update website with new volunteer opportunities and service listings

SKILLS

- Languages: Mandarin (Native & Fluent), Spanish (conversational)
- Programming Languages: Python, Java, C++, MATLAB, LaTeX, HTML (novice), CSS (novice), JavaScript (novice)
- Softwares & Packages: ROS, ROS2, Flutter, Flask, Beautiful Soup, SQLite, Heroku, Tkinter

- Video Editing: iMovie, Final Cut Pro, Handbrake
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OTHERS

- GitHub: <https://github.com/zichungao88>