

Zichun (Jerry) Gao

(443)-518-8605 | g.zichun@wustl.edu | St. Louis, MO

EDUCATION

Washington University in St. Louis

McKelvey School of Engineering

Cumulative GPA (4.0 scale): 3.92

3x Dean's List

Expected Graduation: May 2027

St. Louis, MO

August 2023 ~ present

University of Maryland

Summer School

College Park, MD

May ~ July 2024

River Hill High School

Cumulative Weighted GPA (5.0 scale): 4.90

11x Principal's Honor Roll

2x AP Scholar with Distinction

Clarksville, MD

September 2019 ~ May 2023

ACADEMIC & RESEARCH EXPERIENCES

Robot Control & Navigation

Undergraduate Research Assistant

- Simulated TurtleBot3 by ROBOTIS on Ubuntu 20.04 to test navigation algorithms
- Controlled TurtleBot3 using keyboard teleoperation, arm Python scripts, and gripper GUI
- Utilized ROS Noetic for both virtual simulation and hardware integration

McKelvey School of Engineering

March ~ October 2024

Crime & Social Sentiment Analysis

Researcher & Programmer

- 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

Remote

January 2022 ~ February 2023

Data Labeling

Labeler

- 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

University of Maryland

November ~ December 2022

Redistricting & Gerrymandering

Researcher

- 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

Remote

June ~ November 2021

EXTRACURRICULAR ACTIVITIES

WashU Robotics Club (WURC) Rover Project Team

Software Lead Engineer

- Develop robot description, control, & localization packages in ROS 2 Humble using Ubuntu 22.04 along with several team members
- Utilize existing open-source software e.g. RViz & Gazebo to implement various tasks e.g. teleoperation & autonomous navigation

McKelvey School of Engineering

September 2023 ~ present

Future Leaders of McKelvey Engineering (FLOME)

Member

- 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

McKelvey School of Engineering

February 2024 ~ present

American Computer Science League (ACSL) Intermediate 5 Division

Teamed Competitive Programmer

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

Remote

September 2021 ~ May 2022

United States of America Computing Olympiad (USACO) Bronze Division

Individual Competitive Programmer

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

Remote

August 2020 ~ April 2022

COMMUNITY SERVICE & ENGAGEMENT

Volunteers (NGO)

Chief of Technology

- 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

Howard County, MD

June 2020 ~ June 2023

SKILLS

- Programming & Markup Languages: Python, Java, C++, MATLAB, LaTeX, R
- General-Use Software: Microsoft Office, NI Multisim, Cadence PSpice, iMovie, Final Cut Pro
- Software Development: Ubuntu, ROS 2, Flask, Beautiful Soup, SQLite, Heroku, Tkinter
- Languages: Mandarin (native & fluent), Spanish (intermediate & conversational)