Dayi Ethan Dong

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EDUCATION

Yale University, New Haven, CT; Class of 2024
- B.S. Engineering Sciences (Mechanical) and B.S. Computer Science; Cumulative GPA: 3.94; Major GPA: 3.99
- CPSC 223: Data Structures & Programming Techniques, CPSC 323: Introduction to Systems Programming and Computer Organization, CPSC 365: Algorithms, CPSC 327: Object-Oriented Programming, MENG 361: Fluid Mechanics, MENG 443: Introduction to Robotics, Control, and Learning

Madison West High School, Madison, WI; Class of 2020
- Cumulative GPA 4.00
- 2020 US Presidential Scholar, National Merit Finalist, Dean's List Semifinalist (FIRST Robotics), National AP Scholar, All American Academic, All American Swimming, Wisconsin Academic Excellence Scholar

University of Wisconsin Madison, Madison, WI; Dual Enrollment during high school
- Cumulative GPA 4.00
- Math 234: Calculus – Functions of Several Variables, Math 340: Elementary Matrix and Linear Algebra, Computer Science 300: Programming II

RESEARCH EXPERIENCE

Carnegie Mellon University Robotics Institute, *Student Researcher,* Pittsburgh, PA, 2023
- Attended and sponsored through the RISS program
- Conducted research in Professor Howie Choset's BioRobotics Lab on ergodic search and modular robotics

Yale University School of Engineering and Applied Science, *Student Researcher,* New Haven, CT, 2022-Present
- Conducted research in Professor Ian Abraham's Intelligent Autonomy Lab on multi-agent robotic experiments and validating algorithms for safe active search and exploration
  - "Safety-Critical Ergodic Exploration in Cluttered Environments via Control Barrier Functions" paper was accepted to International Conference on Robotics and Automation 2023 as second author
  - "Time Optimal Ergodic Search" paper was accepted to the 2023 Robotics: Science and Systems conference as first author
    - Best Paper Award at the 2023 Robotics: Science and Systems conference
- Collaborated with undergraduate students, graduate students, and other senior researchers on work related to safe, ergodic exploration

UW Madison Mechanical Engineering, *Research Intern*, Madison, WI, 2019
- Redesigned, programmed, tested, and analyzed a rimless-wheel robot to understand energy efficiencies of hip-driven walking versus ankle-driven walking

WORK EXPERIENCE

Paschar Consulting, *College Application Mentor,* Virtual, 2022-Present
- Guided high school juniors and seniors through the college application process by helping them create an application that best reflects their motivations, accomplishments, and ambitions

Ringle, *English Tutor,* Virtual, 2022
- Worked with Korean professionals and students to help improve their spoken and written English fluency

Alexander Academy, *Academic Tutor,* Atlanta, GA, 2021-Present
- Tutored high school students one-on-one in standardized tests (ACT, SAT)
- Created an online, recorded curriculum for students to utilize as a study resource

VOLUNTEER/LEADERSHIP EXPERIENCE

Code Haven, *Treasurer, Classroom Lead, Mentor,* New Haven, CT, 2020-Present
- Managed finances and purchases for weekly classes as well as interactive events for middle-school students and educators
- Led a class of mentors to teach middle-school students Computer Science

FRC BadgerBOTS, *President*, Madison, WI, 2018-2020
- Designed robot, CADed models, machined pieces, managed finances, led strategy/team meetings, coached drive team
- Helped rookie teams from China and Minnesota finish their robots leading to "Gracious Professionalism" Award
- Assisted the establishment of the first FRC teams in Venezuela and Ukraine

SKILLS

- **Computer Programing**: Python, C, Java, C++
- **Foreign Language**: English, Chinese – Mandarin (Fluent), Spanish (Basic)