

# Dayi Ethan Dong

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## EDUCATION

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**Yale University**, New Haven, CT; Class of 2024

- B.S. Engineering Sciences (Mechanical) and B.S. Computer Science; Cumulative GPA: 3.93; Major GPA: 3.98
- 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

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**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
- 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

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**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

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**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

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