Dayi Ethan Dong

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EDUCATION

Yale University, New Haven, CT
B.S., Major(s): Engineering Sciences (Mechanical), Computer Science   August, 2020 – May, 2024
- Cumulative GPA: 3.94; Major GPA: 3.99
- Relevant Coursework: Data Structures & Programming Techniques, Introduction to Systems Programming and Computer Organization, Algorithms, Object-Oriented Programming, Fluid Mechanics, Introduction to Robotics, Control, and Learning

TECHNICAL SKILLS

- Programming Languages: Python, C, Java
- Software: Solidworks, Fusion 360
- Languages: English (Native), Mandarin (Proficient), Spanish (Elementary)

RESEARCH EXPERIENCE

Carnegie Mellon University, *Undergraduate Researcher*, Pittsburgh, PA   May, 2023 – August, 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, *Undergraduate Researcher*, New Haven, CT   November, 2021 – 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

LEADERSHIP/WORK EXPERIENCE

Yale Code Haven, *Treasurer, Classroom Lead, Mentor*, New Haven, CT   2020 – Present
- Managed finances and purchases for the organization while coordinating with Yale financial offices
- Planned large interactive events for middle-school students and educators
- Led a class of peer mentors to teach middle-school students Computer Science

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

Alexander Academy, *Academic Tutor*, Virtual   2021 – Present
- Tutored high-school students one-on-one in standardized tests (ACT, SAT)
- Created an online, recorded curriculum for students and tutors to use as a resource

SELECTED PUBLICATIONS AND PRESENTATIONS

- "Safety-Critical Ergodic Exploration in Cluttered Environments via Control Barrier Functions"
  - Paper accepted to International Conference on Robotics and Automation 2023 as second author
  - Poster presentation at International Conference on Robotics and Automation 2023
  - https://arxiv.org/abs/2211.04310
- "Time Optimal Ergodic Search"

- o Paper accepted to the 2023 Robotics: Science and Systems conference as first author
- o Best Paper Award at 2023 Robotics: Science and Systems conference
- o https://arxiv.org/abs/2305.11643

GRANTS AND FELLOWSHIPS

- Society of American Military Engineers Gift Fund for Scholarships
- Dr. Claire A. Colman Scholarship Fund
- Morton Butler Ryerson Memorial Scholarship Fund
- Robert B. Dodds (M.S.E.E. 1928) Scholarship Fund
- Dean's Research Fellowship
- Yale Summer Experience Award