

Hayden M. Webb

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832.480.2225

Rice University,
Department of Computer Science
Houston, TX

EDUCATION

- 2021-Present* **B.S., Rice University** (Major: Mechanical Engineering & Minor: Engineering Design) - Houston, TX
- 2017-2021* **Conroe High School**, (Top 1%) - Conroe, TX

PROFESSIONAL EXPERIENCE

- 2023-Present* **Undergraduate Researcher**, Rice University George R. Brown School of Engineering - Houston, TX
Advisors: Dr. Kaiyu Hang
Projects: Wearable Roller Ring & Versatile Roller Glove
- 2021-2023* **Robotics Engineer**, Rice University Robotics Club - Houston, TX
- 2022* **Undergraduate Researcher**, Mentored Independent Project, Rice University Office of Innovation - Houston, TX
Advisors: Dr. Paul Cherukuri, Grant Belton
Project: Smart Helmet Material Fabrication
- 2022* **Extern**, Blue Origin - Houston, TX
- 2021-2022* **Project Design Engineer**, Oshman Engineering Design Kitchen, Houston, TX
Advisors: Deirdre Hunter & Robert Read
- 2019-2020* **Intern**, NASA (High School Aerospace Scholar) - Houston, TX

LEADERSHIP EXPERIENCE

- May 2023 -* **President, Rice University Robotics Club**
- May 2024* Managed 100+ students and 10+ teams on the development of their projects & Assisted in collecting \$5000+ through Funds & Fellowships
- Fall 2022 -* **Manufacturing Team Lead, Rice University Robotics Club**
- May 2023* Led 10+ students on the mechanical design & creation of an overactuated arm device capable of mirroring a user's movements
- 2021* **Doerr Institute for New Leaders Program, Rice University**
- 2020-2021* **President, National English Honor Society, Conroe High School**
Promoted literacy in surrounding schools through reading programs and community events for elementary students
- 2019-2020* **Team Lead, NASA (Highschool Aerospace Scholar)**
Led 20+ students on the mechanical design of a Lunar Lander

HONORS AND AWARDS

- 2021* AP Scholar with Distinction - College Board

PUBLICATIONS

Wearable Roller Rings to Enable Robot Dexterous In-Hand Manipulation through Active Surface
H. Webb, P. Changrunmaneeikul., S, Yuan, and K. Hang, *arXiv 2403.13132*, 2024

PRESENTATIONS

2024

H. Webb, P. Changrunmaneeikul., S, Yuan, and K. Hang; Wearable Roller Rings to Enable Robot Dexterous In-Hand Manipulation through Active Surfaces. Texas Regional Robotics Symposium (TEROS) [Poster]

TEACHING EXPERIENCE

Fall 2022 - Present **Teaching Assistant, Rice University**
Assisted undergraduate & graduate students with team projects and individual competencies through led instruction in ENGI 210 - Prototyping & Fabrication

Fall 2024 **Teaching Assistant, Rice University**
Assisted with teaching & grading in MECH 315- Stress Analysis

Spring 2024 **Teaching Assistant, Rice University**
Assisted with teaching & grading in MECH 310 - Rigid Body Dynamics

Summer 2022 **IBB Summer Academy Assistant, Rice University**
Assisted with a week-long course for highschool students on engineering design tools, devices, and processes

Fall 2020 - Spring 2021 **Teaching Assistant, Conroe High School**
Assisted with teaching and grading for Honors Chemistry.

Fall 2019 - Spring 2021 **Tutor, Conroe High School**
Head lead for AP Fellow Program to tutor 9th-12th Grade students

COMMUNITY SERVICE

RICE UNIVERSITY

2021-2022 OEDK New Student Ambassador (50+ Hours)

CONROE HIGH SCHOOL

2020-2021 National Math Honor Society (50+ Hours)
2019-2021 National English Honor Society (150+ Hours)
2019-2021 National Honor Society (50+ Hours)
2015-2021 CISD Police Jr. Leadership (1000+ Hours)
2017-2020 Interact Club (100+ Hours)

PROFESSIONAL SOCIETIES

American Society for Mechanical Engineers (ASME)
Institute for Electrical and Electronics Engineers (IEEE)