

# Hayden M. Webb

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[LinkedIn](#) | [Portfolio](#)

832.480.2225

Rice University,  
Department of Computer Science  
Houston, TX

## EDUCATION

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- 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

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- 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 - 2024*    **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

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- 2023 - 2024*    **President, Rice University Robotics Club**  
Managed 100+ students and 10+ teams on the development of their projects & Assisted in collecting \$5000+ through Funds & Fellowships
- 2022 - 2023*    **Manufacturing Team Lead, Rice University Robotics Club**  
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

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- 2021*    AP Scholar with Distinction - College Board

## **PUBLICATIONS**

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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**

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**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**

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*2022 - Present*    **Teaching Assistant, Rice University**

Assisted undergraduate & graduate students with team projects and individual competencies through led instruction in ENGI 210 - Prototyping & Fabrication

*2024*            **Teaching Assistant, Rice University**

Assisted with teaching & grading in MECH 315- Stress Analysis

*2023-2024*    **Teaching Assistant, Rice University**

Assisted with teaching & grading in MECH 310 - Rigid Body Dynamics

*2022*            **IBB Summer Academy Assistant, Rice University**

Assisted with a week-long course for highschool students on engineering design tools, devices, and processes

*2020 - 2021*    **Teaching Assistant, Conroe High School**

Assisted with teaching and grading for Honors Chemistry.

*2019 - 2021*    **Tutor, Conroe High School**

Head lead for AP Fellow Program to tutor 9th-12th Grade students

## **COMMUNITY SERVICE**

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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**

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American Society for Mechanical Engineers (ASME)

Institute of Electrical and Electronics Engineers (IEEE)