

# MA HAIBO

Department of Mechanical, Aeronautical, Nuclear Engineering  
School of Engineering, Rensselaer Polytechnic Institute, USA  
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## EDUCATION

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### Rensselaer Polytechnic Institute

Troy, NY

BS in Aeronautical Dual Mechanical Engineering

September 2019 to Present

- Selected awards: Dean's Honor List (Spring 2022, Spring 2020);
- Selected Courses: Introduction to Engineering Analysis, Aerodynamics, Fluid Mechanics, Thermodynamics, Numerical Method and Programming, Physics I and II, Chemistry I, Strength of Materials, Aerospace Structure and Materials, Element of Mechanical Designs, Material Science, Finite element analysis

## RESEARCH EXPERIENCE

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### Rensselaer Polytechnic Institute

Troy, NY

Research Assistant to Dr. Michael Amitay

January to May 2022

#### Transonic Tunnel Renovation

- This research aimed at renovating the transonic facility at the Center for Flow Physics and Control (CeFPaC) at RPI for future testing related to reverse flow on helicopter blades.
- Supported a post-doc in the design and modification of the wind tunnel
- Learned how to use Lab View and Cad models

### University of Pennsylvania

Philadelphia, PA

Research Assistant to Dr. Dan Huh

November 2020 to February 2021

#### The Amazing and Fun World of Physics

- This research aimed at studying how fluid would behave on micro-scale bases and the potential applications for microfluid technology.
- Participated in the workshop and worked in small groups on the final projects that focused on the critical review of literature on the development of new engineering technologies using novel physics phenomena
- Surveyed important technological advances made possible by the principles of physics, learned how to work effectively with peers in a dynamic team environment, and improved participants' presentation skills

## SELECTED AWARDS AND HONORS

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- Certified White Belt for Lean Six Sigma method (January 2022)
- Certified Basic Life Support (BLS) provider (August 2019)

## WORK EXPERIENCE

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### General Motor

Troy, NY

Intern, Center for Flow Physics and Control (CeFPaC) at RPI

May to August 2022

- Took part in researching the SUVs performance enhancement that was funded by General Motor
- Assisted a graduate student working on the project about NX cad models design, conducting the wind tunnel experiments run, and data collection by particle imagery velocimetry technique, and data processing.
- Skillfully applied software, such as National Instruments LabVIEW and Para view
- Enhanced skills in how to utilize the technique of particle image velocimetry.

## ADDITIONAL INFORMATION

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### Rensselaer Polytechnic Institute

Troy, NY

Forge Volunteer

January 2022 to Present

- Assisted in the 3D printing projects
- Helped students improve cad drawings and models.
- Assisted about 20 students per working shift (two shifts each week)
- Learned how to use a variety of 3D printers, software and laser cutters

Mentee, Flying Club

January 2021 to Present

- Attended daily meetings to discuss airplane-related problems
- Organized and planned weekend activities, for example, aircraft maintenance and hot air balloon site seeing
- Learned maintenance skills on old Cessna Aircrafts, and received flight ground school training

Trainee, RPI Ambulance

August 2019 to Present

- Provided medical assistance to athletes for all school's sports event
- Certified CPR provider from the American Heart Association

**Interests**

- Gymnasium, Cad Modelling, Basketball, Frisbee

**Computer and Language Skills**

- Skills: Python, Siemens NX, Inventors, R studio, MATLAB, Para View, Lab View
- Language: Chinese (native), English (proficient)