# Shengbin Wang

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## Education

**University of Houston (Robotic Core courses GPA|4)** *Houston, TX*
· Ph.D. in *Mechanical Engineering* *Aug. 2018 - present*

**HeFei University of Technology** *Hefei, China*
· M.S. in *Mechanical Engineering* *Sep. 2015 - May. 2018*

**Shandong University（exchange program）** *Jinan, China*
· B.E. in *Mechanical Manufacturing and Automation* *Sep. 2013 - Jul. 2014*

**Huazhong Agricultural University** *Wuhan, China*
· B.E. in *Mechanical Manufacturing and Automation* *Sep. 2011 - June. 2015*

## Skills

• ***Matlab*** • **Abaqus** • **ProE** • **Auto CAD** • ***Solidworks*** • **Python** • **R**

## Work Experiences

**Research Assistant | University of Houston** *Aug.2018 - Present*
· Self-sensing of dielectric tubular actuator and its validation in feedback Control.
· Design and fabricate a jellyfish robot, develop and implement optical control systems combining with machine learning.
· Analyzed the pulp and paper mill break event classification in multivariate time series with machine learning

**Teaching Assistant | University of Houston**
· Served as TA for MECE3360 Experimental Methods *June.2020 – Present*
· Served as TA for INDE7397-Engineering Analytics and INDE6372-Advanced Linear Optimization *Aug.2018 – May.2019*

**Mercedes-Benz in Beijing, China | Quality Management Intern** *Aug. - Nov. 2016*
· Monitored the defects of the exterior and interior car and wrote daily production reports
· Analyzed the causes of defects and proposed improvement solutions

**Dongbo Fasteners Co. Ltd, China | Graduate Consultant** *Oct.2015 - June. 2017*
· Structural optimization of circlips and theoretical calculation of limit speed
· Designed an experiment to measure the detaching speed of the circlips
· Deduced the theoretical formula of limit speed of circlips by referring German circlip standard DIN471

**BOSCH Thermal Technology Co. Ltd in Wuhan, China | Product Design Intern** *Mar. - June. 2015*
· Assisted the engineers to design and revise the boiler products by drawing software

## Projects

**Analysis of limit speed of the circlips** *Nov.2016 - Aug. 2017*
· Deduced the contact state between the circlips and the shafts and verified by experiments
· Analysed the experimental results by the finite element software Abaqus

**Structure design of grape sorting machine based on machine vision** *Oct. 2014 - June. 2015*
· Completed the sorting pipeline mechanism design and optimize the sorting mechanism.

## Publication

**Self-Sensing of Dielectric Elastomer Tubular Actuator with Feedback Control Validation** *May. 2020*
· **Shengbin Wang,** Theophilus Kaaya, Zheng Chen. Smart Material and Structures 2020.

**Self-sensing of Dielectric Tubular Actuator and Its Validation in Feedback Control** *May. 2020*
· **Shengbin Wang,** Theophilus Kaaya, Zheng Chen. AIM 2020.

**Research of radial failure criterion and limit speed for circlips** *June. 2017*
· **Shengbin Wang**, Chunxian Wang, Zhe Wu, et al. Mechanical Strength, 200(06): 1412-1418, 2018.

## Awards and Honors

· Brij & Sunita Agrawal Scholarship ($1000 with instate tuition) *2019*
· First-class scholarship *2017*
· First-class scholarship *2016*