



Shuheng Liu DOB:11/13/1997|Tel:(0086)18964702918| lshuheng@umich.edu

Honeywell Aerospace Software Engineer. Shanghai Jiaotong University - University of Michigan Dual Degree program graduate major in Mechanical and Aerospace Engineering. Have wide knowledge of aerospace and computer. Experience in design and manufacturing, avionics system and software development, simulation, and data.

Education

University of Michigan	Sep 2020~April 2021	Compressible flow, viscous flow, Hypersonic aerodynamics,
Master of Science in Engineering	Ann Arbor, MI	Computational Fluid Dynamics, Molecular gas dynamics,
Aerospace Engineering		Turbulence, Rocket Propulsion, Combustion process...

GPA: 3.933 | Aerodynamics and propulsion track

Projects: Design and implementation of CFD algorithm, Design and simulation of a multi-stage rocket mission

University of Michigan	Sep 2018~April 2020	Aerospace Engineering Systems, Control of Aerospace
Bachelor of Science in Engineering	Ann Arbor, MI	Vehicles, Aerodynamics, Aerospace structures, Aerospace
Aerospace Engineering		Propulsion, Laboratory and Instruments, Algorithm and data structure, Circuits, Heat transfer...

GPA: 3.935 (summa cum laude) | Aerospace Engineering theories and professional skills

Capstone design: 1. Stabilization Method for Multi-Rotor UAVs Experiencing loads from Robotic Manipulation

2. Near Earth Objects exploration mission planning

Shanghai Jiaotong University	Sep 2016~Aug 2020	Calculus, Academic Writing, Honors Physics, Fluid Mechanics,
Bachelor of Engineering	Shanghai	Solid Mechanics, Thermodynamics, Machine shop training, Design
Mechanical Engineering		and Manufacturing, Intro to computer and programming

GPA: 3.61, Ranking:5/44| Design and manufacturing, Prototyping and controlling, Technical Communications.

Capstone design: Deep learning for data anomaly detection

Work Experience

Honeywell Aerospace (2021/8~now)

Software Engineer

Certified Green Belt

Avionics System Safety Assessment

Flight Management System test procedures

Cockpit display software development

University of Michigan (2019/9~2019/12)

Undergraduate researcher

Research on non-unique solution in transonic flow based on STAR-CCM+:

Verify the existence of non-unique solution in transonic flow;

Discover the effect of mesh resolution and shape on non-unique solution;

Find out unsteady simulation helps to get unique solution

Compose a final report

University of Michigan (2019/5~2019/9)

Research assistant

Study cycle-to-cycle variation in internal combustion engine by machine learning.

Design an algorithm to realize:

1. Detect and analyze anomalous cycle

2. Verify the overall stability of the entire cycles

3. Confirm the reliability of pressure monitoring

Build and test an easy-to-use MATLAB program

Create explanation slides

Shanghai Jiaotong University (2017/5~2018/8)

Mechatronic Engineering intern

1. Design and manufacture mechanical prototype, build and test control program to complete designated tasks:

a) Design and manufacturing of paper bridge and mechatronic crane

b) Multi-pingpong ball picking machine

c) Robotic arm with soft robotic claw

d) Transformable wheel

2. Make both final report and presentation

Shanghai Jiaotong University (2018/5~2018/8)

Teaching assistant

Assist the teaching of Honors Physics (~100 students)

1. Teach recitation class one time per week
2. Hold office hour 2 hours per week
3. Grade 30 assignments per week
4. Invigilate three times per term and grade exams

Sanhe Middle School of Yunnan Province (2016/12~2017/1)

Aid-teacher

Teach physics of two classes, about 50 students per class.
Final grades of the two classes have progresses

Honor

2019/12,2019/4,2018/12,2017/9

2017/11

2017/6

2017/3

Dean's List

Excellent undergraduate student scholarship of Shanghai Jiaotong University

Excellent student union member of UM-SJTU Joint Institute

UM-SJTU JI Volunteering Spirit Scholarship

Skills

Programming languages

MATLAB, C/C++, Python, Javascript, Obj-C, Swift

Technology stack (studying)

MongoDB, Express, React, Node

Engineering design

AUTOCAD, UG, CATIA

Other

Microsoft kit, IBM DOORS