Jiaoran WANG

jiaoranw@usc.edu | TEL: 213-284-4964 | Los Angeles, CA

OBJECTIVE: Applying for 2021 Fall Mechanical Engineering Ph.D. Program

EDUCATION BACKGROUND:

09/2019-Present	**University of Southern California** ✧ Major: Mechanical Engineering ✧ GPA: 3.75/4.0 ✧ Degree: Master of Mechanical Engineering (expected in 05/2021)	**Los Angeles, USA**
09/2015-07/2019	**Harbin Engineering University** ✧ Major: Flight Vehicle Design and Engineering ✧ GPA: 3.39/4.0 ✧ Degree: Bachelor's Degree in Aerospace Engineering	**Harbin, China**

SKILLS:

✧ **Programming Language:**	MATLAB-Simulink (proficient), Python (good at data structure), R/RStudio (familiar), C/C++(familiar), Octave (familiar)
✧ **CAD Software:**	SolidWorks (proficient), Auto-CAD (proficient), UG-NX (familiar), CATIA (familiar)
✧ **Simulation Software:**	ANSYS (proficient in APDL/FLUENT/CFX), COMSOL (familiar with Multiphysics)
✧ **Equipment:**	3D Printer(proficient), Laser Cutting Machine, CNC Machine and other machine tools
✧ **Algorithm:**	Machine Learning Algorithm, Deep Learning Algorithm

RESEARCH EXPERIENCES:

01/2020-Present	**Valero Lab (Brain-Body Dynamics Lab)**	**Los Angeles, USA**
	✧ Working on the design and strain gauges' signal testing of biomechanical leg. ✧ Using Machine Learning module in MATLAB to classify the observed signal	
01/2020-05/2020	**Center for Advanced Manufacturing (CAM at USC)**	**Los Angeles, USA**
	✧ Working on Additive Manufacturing 3D Printing of Conformal Antenna. ✧ Designed Arduino – Python UDP communication system for manually and remote control for robot 3D printing	
09/2019-11/2019	**Design Project on Automatic Test-tube Sorting System**	**Los Angeles, USA**
	✧ Put forward a design proposal using rollers and conveyers for rapid Test-tube Sorting System. ✧ Used OpenCV (visual image recognition technology) for tube identification	
02/2019-06/2019	**Outstanding Dissertation at Harbin Engineering University**	**Harbin, China**
	✧ Design and Experimental Study of Thermoelectric Structure in Aerospace Aircraft ✧ The thermoelectric sheet architecture among annular thermoelectric module at gunship nozzle was designed, and the temperature difference experiment was carried out. ✧ Method to determine the optimal size based on the conversion efficiency extremum is proposed.	

INTERNSHIP EXPERIENCES:

02/2019-03/2019	**Aviation Industry Corporation of China**	**Beijing, China**
	✧ Worked in the structure of transportation rocket projector and participated in the unit part grinding and assembly process	
08/2018-09/2018	**Shenyang Aircraft Corporation**	**Shenyang, China**
	✧ Visited the workshops of civil and military aviation and learnt practical aircraft manufacturing knowledge and skills as well as the differences in the procedures of manufacturing	

EXCHANGE EXPERIENCES:

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02/04-03/03/2018	**International Programs in UC San Diego Extension**	**San Diego, USA**
	✧ Program: English for Engineering and Technology ✧ Grade: A	
01/20-02/07/2018	**Course Leaning Program in The University of Minnesota**	**Minneapolis, USA**
	✧ Department: Chemical Engineering and Material Science ✧ Core Courses: Reactor and reaction engineering, Chemical engineering laboratory, Numerical methods in chemical applications	

LISENCES & CERTIFICATES:

Issue Date	Name	Issuing Organization
06/2020	**R Programming** ✧ Credential:https://www.coursera.org/account/accomplishments/certificate/HH6LDFV5BNJA	Johns Hopkins University offered through Coursera
06/2020	**Capstone: Retrieving, Processing, and Visualizing Data with Python** ✧ Credential:https://www.coursera.org/account/accomplishments/records/F8YUUTWR7U6T	University of Michigan offered through Coursera
06/2020	**MATLAB-Machine Learning Onramp** ✧ Credential:https://matlabacademy.mathworks.com/progress/share/certificate.html?id=fedb0ed4-9b29-441a-8b4c-404c3f69b3ad	MATLAB-Online Training Service
06/2020	**MATLAB-Deep Learning Onramp** ✧ Credential:https://matlabacademy.mathworks.com/progress/share/certificate.html?id=9284795f-2558-4dcf-836b-1881ccc339a3	MATLAB-Online Training Service
05/2020	**Using Python to Access Web Data** ✧ Credential:https://www.coursera.org/account/accomplishments/verify/2LWKRUUHV76G	University of Michigan offered through Coursera
05/2020	**Python Data Structures** ✧ Credential:https://www.coursera.org/account/accomplishments/verify/K2SS6NVE756G	University of Michigan offered through Coursera

PERSONAL INTERESTS

- ✧ Arduino programing for Robot car control
- ✧ MIDI keyboard controller for electrical song arrangement
- ✧ Playing LEGO (obsessed with ‘Apollo’ series)