

Lida Lou

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EDUCATION

The Hong Kong Polytechnic University Hong Kong, China
MS, Mechanical Engineering, Aerospace Engineering 9/2014 – current

- GPA 3.6/4; Ranking 2/53
- Degree to be completed August 2016
- Dissertation topic: Aeroelastic study of flapping wing using OpenFOAM

Nanjing University of Aeronautics & Astronautics Nanjing, China
BS, Engineering, Aircraft Design & Engineering 9/2010 – 6/2014

- GPA 83/100; Ranking 7/43
- University Scholarship 2013-2014; University Leadership 2011-2012, 2012-2013
- Outstanding League Member 2011-2012
- Thesis title: Free-flight wing tunnel model design

RESEARCH EXPERIENCE

The Hong Kong Polytechnic University Hong Kong, China
Master's Dissertation Project 9/2014 – current

- Aeroelastic study of flapping wing using OpenFOAM
 - Create program for different 3D wing geometry generation
 - Generate computational grid for the flapping wing
 - Test different dynamic mesh methods
 - Apply Radical Basis Function Dynamic Mesh method to the computational grid
 - Calculate different wing motion matrix
 - Apply parallel calculation
 - Research applications: creation of baseline to design a new kind of flapping-wing vehicle and foundation to address the Fluid-Solid Interaction problem

Nanjing University of Aeronautics & Astronautics Nanjing, China
Jiangsu Province Innovation Fund Research 4/2013 – 4/2014

- Team leader for project, responsible for writing and submitting funding application as well as research plan for project
- Title: Design and Construct an Underwater Vectored Thruster
- Designed the structure and drive mechanism of the vectored thruster
- Designed and tested the sealing structure for the thruster used underwater
- Tested the thrust force with six-component balance

Nanjing University of Aeronautics & Astronautics Nanjing, China
Bachelor's Thesis Project 9/2010 – 6/2014

- Free-flight wing tunnel model design
 - Created a free-flight wind tunnel test model
 - Completed CFD simulation of 3 different models prior to construction
 - Ran flight tests using wind tunnel and without using wind tunnel
 - Used LabVIEW's functions to gather flight data of models, including change in angle and acceleration
 - Studied the interaction between wind tunnel structure and free-flight model

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WORK EXPERIENCE

Aviation Industry Corporation of China (AVIC)/ Chengdu, China
Chengdu Aircraft Industrial (Group) Co., Ltd.

Quality Control Department Internship 7/2013 – 7/2013

- Leader of 42 person work group.
- Completed quality checks on Chinese New Type Jet Flight body parts.
- Participated in overview of entire aircraft assembly line.

Shanghai Volkswagen Powertrain Co., Ltd. Shanghai, China
Engine Testing Center Internship 7/2012 – 8/2012

- Responsible for communication between the assembly line of the prototype engine and the engine test center.
- Organized order of engine assembly and collection of data during engine testing.
- Completed Engine Durability Test and Maximum Duty Test for 3 different VW prototypes.

Shanghai Hitachi Electrical Appliance Co., Ltd. Shanghai, China
AC Compressor Design Department Internship 7/2011 – 8/2011

- Responsible for CFD analysis of AC Compressor Design, including pre-process functions such as modification of computation domain scales and geometry.
- Organized more than 30 types of testing compressors and spare parts.
- Coordinated lab and design department regarding the data analysis of a new type of Compressor Durability Test.

TECHNICAL SKILLS

Programming Languages

C++
Python
LaTeX
Fortran

Operating Systems

Linux

Engineering Software

AutoCAD
Matlab
CATIA
Ansys
Arduino (basic)