Mr. Liu, Yang

Education

Sept. 2013 – Jun. 2017 **Beihang University (Beijing Univ. of Aeronautics & Astronautics), Beijing, China**

Bachelor of Engineering in Aerospace Power Engineering

- GPA: 88.1/100
- Rank: 3/50
- Second Prize in National College Students English Contest (2016)
- Academic Excellence Award – Second Prize (2016)
- Academic Excellence Award – Fourth Prize (2015)
- Excellent in mathematical contest in modeling in Beihang University (2015)

Feb. 2015 – Jun. 2015 **National Chiao Tung University, Hsinchu, Taiwan**

Exchange student in Department of Mechanical Engineering, NCTU

- GPA: 91/100

Standard Tests

GRE

- Verbal 152 (55% below) Quantitative 170 (97% below)
- Analytical Writing 3.0 (17% below)

IELTS

- Overall 7.5
- Listening 8.5 Reading 8.0 Speaking 6.5 Writing 6.5

Research Experience

Dec. 2016 – Present **A Numerical Simulation of Combustion Process of Liquid Rocket Engines**

This is my thesis project in Department of Aerospace Engineering, Beihang University.

- Make literature review about liquid rocket engine combustion process, which comprises droplet break up, droplet vaporization, two-phase flow and combustion.
- Use our lab's TCA (Transient Chamber Analysis) program to simulate EADS Company's 10N thruster work process. Compare the simulation result to the experiment result.
- Design a case table. Use TCA program calculate all cases. Find the influence of selected parameters (e.g. Spray Cone, Supply Pressure) to the performance of the rocket engine.

Nov. 2015 – Apr. 2016 **Micro-hollow cathode discharge thruster design**

This is a project undertaken by a faculty member of Beihang University. My assistant work assignment comprises

- Designing a micro aircraft thruster based on previous publication (Raja et al. 2005),
- Manufacturing and processing the revised thruster in workshop,
- Measuring thrust and specific impulse in air and argon discharge environment.

Sept.2015 – Dec. 2015 **Blue-tooth RC car design** (winning the first prize — 1 out of 62)

This is a team project for a contest hosted by Beijing Municipal Education Commission on designing model cars for lifting and replacing certain obstacles. My own work includes

- Completing engineering drawing of each mechanical part of RC car on computer,
- Manufacturing and processing each part using the devices like lathe, milling machine, laser cutting machine and 3D printer,
- Designing a program with Arduino SCM, controlling the movement of RC car.

Internship and Work experience

July. 2016 **China Aerospace Science and Technology Corporation No. 801 Institute**, **Shanghai**

- Attending lectures involving basic principles of aircraft propulsion and techniques of aircraft design and manufacturing
- Visiting workshops, learning manufacturing techniques of several parts of liquid rocket engine, such as injector and nozzle
- Conducting independent study of the subject "Electric propulsion" (*Awarded the "Best Individual in Specialized Production Practice")*

August. 2015 **China Aerospace Science and Technology Corporation No. 811 Institute & No. 509 Institute**, **Shanghai**

- Visiting the workshops in institutes
- consulting local technicians about advanced material processing methods

Sept. 2014 – Feb. 2015 **Ozing Company**

- Working as remote online tutor, answering questions of all subject areas from middle-school students.

Extra-curriculum Activities

July 2014 – August 2014 **Volunteer Work, New Delhi, India**

- Participating in the volunteer environmental protection work organized by AIESEC, with major work assignments including 1) taking care of animals in local care center, 2) handing out environmental protection leaflets and planting trees.

Oct. 2013 – Dec. 2013 **Volunteer work, Beijing, China**

- Working as a tour guide every other weekend at China Science and Technology Museum

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Other skills

- Programming Language: C/C++, Fortran and Matlab
- Operation Software: Solidworks, AutoCAD, Comsol
- Native speaker of Chinese, advanced proficiency in English, intermediate proficiency in German

(Further information is available upon request.)