Shao Ge
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EDUCATION

Bachelor of Science in Mechanical Engineering — Graduated June 2020
Bachelor of Science in Aerospace Science and Engineering — Graduated June 2020
University of California, Davis
Master of Science in Mechanical Engineering — Expected June 2022
University of Washington, Seattle
GPA 3.91/4

SKILLS

Software	• PATRAN, SolidWorks, ESPRIT, LabView, Latex, CAD, CAM
Program	• MATLAB, Python, JAVA, C/C++
Equipment	• Milling Machine (CNC), Drill Press, and Lathe Machine, 3D Printer
Language	• Mandarin (Fluent), English (Fluent)

PROFESSIONAL EXPERIENCE

Engineering Summer Internship, Compass, China — June. 2017-Sep. 2017
• Mechanical Engineer training
• Learned how to use Milling Machine, Drill Press, and Lathe Machine
• Mechatronics practice
• Experience of working at construction

Engineering Summer Internship, Compass, China — June. 2018-Sep. 2018
• Electrical Engineer training
• Studied and carried out maintenance of construction equipment with professional engineers
• Manage basic installation of water and electricity supply

PROJECTS

MATLAB Music Editor, UC Davis — March 2017-June 2017
• Led a team with 3 members to design a music player
• Constructed function of cutting the music, controlling the speed, setting frequencies, and record monophonic sounds.

Manufacturing Gyroscope, UC Davis — Jan. 2018-March 2018
• Designed spindle, frame, and rotor in SolidWorks with failure mode effects analysis
• Manufactured all parts using a drill, mill, lathe, and CNC machine

• Collaborated with ESDC shop staffs to improve the G-CODE for CNC machine

Automated Watering System for School Farm, UC Davis Sep. 2018-Dec. 2018
• Provided the solution to the group's project
• Prototyped the system in SolidWorks and printed the system by 3-D Printer
• Used microcontroller kits to build a single irrigation system

Failure and Fatigue Test of Bicycle Components, UC Davis Feb. 2019-April 2019
• Used design against mechanical failures to analyze the handlebar, the fork, and the pedal of a random bicycle under the worst loading case
• Calculated the fatigue of the pedal with bolt and estimate their life cycles based on the materials
• Provided detailed reports with all calculations and suggestions

Space Satellite Analysis, UC Davis Nov. 2019
• Evaluated the maximum deformation and stress due to the inertia load from launching
• Inspected the first ten modes of natural frequency and their mode shapes
• Analyzed the heat transfer from the electronics

EAE 127 Aerodynamics, UC Davis Sep. 2019-Dec. 2019
• Studied Applied Aerodynamics
• Use Python and X-foil to solve analytical problems and computational projects
• Writing Report by using Jupiter Notebooks

AIAA High Capacity Short Range Transport Aircraft, UC Davis Jan. 2020 - May. 2020
• Worked with 4 team members and designed Aircraft
• Calculated and plotted initial sizing diagram.
• Computed wing sizing and tail sizing, designed control surfaces
• Provided aerodynamics analysis and stability and control Analysis
• Studied and designed landing gear kinematics

Mode Analysis and Flutter Analysis of Truss Braced Wing, UC Davis April. 2020-June. 2020
• Modeled and analyzed the simplified truss braced wing geometry in PATRAN
• Solved the elements meshing and component connectivity
• Calculated the flutter speed and made divergence analysis with team members