XIAOYAO GAO

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EDUCATION

Rice University, Houston, TX   August 2017 – May 2021
Bachelor of Science in Mechanical Engineering with Engineering Design Minor
GPA: 3.87/4.0

EXPERIENCE

Lab Technician   September 2018 - Present
Oshman Engineering Design Kitchen (OEDK), Houston, TX
- Train and assist students (~25 students present per shift) with using makerspace rapid prototyping machines
- Led bimonthly workshops with 5-10 participants on basics of SLA 3D printing, laser cutting, and molding/casting

Systems Engineering Intern
The Boeing Company, Everett, WA   May 2020 – August 2020
- Created Tableau dashboard and static HTML/CSS web page to track and visualize employee recognition data, promoting engagement and culture change in BCA ALEI, a 100+ person organization
- Followed AGILE methodology in defining business need, generating user stories from 12+ user interviews, and organizing project sprints and requirements
- Wrote Python scripts to data mine, web scrape, and compile recognition data from 4+ Excel extracts
- Received training on MBSE fundamentals and SysML modeling

Engineering Intern   May 2019 – August 2019
Barnes Aerospace, Windsor, CT
- Designed and created drawing for EDM electrode inspection fixture with 6+ components using Siemens NX and GD&T, which was approved for production
- Automated production tracker data entry using Excel VBA
- Initiated PFMEA (process failure mode element analysis) for new grinder in jet engine production process
- Received training on lean six sigma and metallurgy (with emphasis on machining and engine materials)

PROJECTS

Drawing Robot   April 2020 – May 2020
- Designed, simulated, and modeled 3DOF servo-controlled robotic drawing arm with MATLAB and SolidWorks
- Used image processing algorithms to convert user-upload image files into optimized robot drawing trajectory
- Calculated forward and inverse kinematics of robot to determine motor movement and joint position

Educational Model for Texas Children's Hospital   June 2018 – July 2018
- Collaborated with multinational student team to design a shoulder model for physical therapy treatment of infants with brachial plexus palsy
- Prototyped product using SolidWorks modeling, 3D printing, and laser cutting, and documented test results

ACTIVITIES

Personnel Manager & Section Leader – *Rice Marching Owl Band*   May 2019 – May 2020

TECHNICAL SKILLS

Software: SolidWorks, NX/UG, Microsoft Excel, Tableau, some familiarity with SysML and Linux
Programming*:* Python, MATLAB, Simulink, HTML, CSS, Arduino
Fabrication: 3D printing, CNC milling, soldering, molding/casting, basic welding