

# XIAOYAO GAO

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## EDUCATION

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**Rice University**, Houston, TX

August 2017 – May 2021

*Bachelor of Science in Mechanical Engineering with Engineering Design Minor*

GPA: 3.87/4.0

### Relevant Coursework:

- Multivariable Calculus
- Materials Science
- Thermodynamics
- Differential Equations
- Mechanics of Solids
- Fluid Dynamics

## EXPERIENCE

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Lab Technician

September 2018 - Present

*Oshman Engineering Design Kitchen (OEDK)*, Houston, TX

- Assisted students with using engineering makerspace machines (3D printer, waterjet, plasma cutter, etc.)
- Monitored makerspace (~25 students present per shift) to maintain safety and organization
- Led workshops with 5-10 participants on basics of 2D drawing and laser cutting

Engineering Intern

May 2019 – August 2019

*Barnes Aerospace*, Windsor, CT

- Designed, modeled, and created drawing for EDM electrode inspection fixture using Siemens NX and GD&T, which was approved for production
- Initiated PFMEA (process failure mode element analysis) for new grinder in jet engine production process
- Received basic training on lean six sigma and metallurgy (with emphasis on machining and jet engine materials)
- Inspected 10+ fairings used in GE engines to assist with root cause analysis
- Automated production tracker data entry using Excel VBA

## PROJECTS

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Educational Model for Brachial Plexus Palsy

September 2017 – May 2018

- Collaborated with multinational student team to create a shoulder model for the Texas Children's Hospital to use in physical therapy treatment of infants with brachial plexus palsy
- Used fabrication tools such as SolidWorks modeling, 3D printing, and laser cutting to prototype product
- Documented design process, budget and spending, and prototype testing results

For visuals of previous projects, see [xiaoyaogao.github.io](https://xiaoyaogao.github.io)

## TECHNICAL SKILLS

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*Software:* SolidWorks, Siemens NX, Fusion360, Adobe Illustrator, Microsoft Excel

*Programming:* Python, MATLAB, Excel VBA

*Fabrication:* Additive manufacturing, hand/wood-working tools, CNC milling, some experience with lathes, welding, soldering, and molding/casting

## LEADERSHIP

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*Rice Marching Owl Band – Personnel Manager*

May 2019 - Present

- Trained and supported 9 section leaders in band with section recruitment and organization
- Acted as liaison between executive team and section leaders to communicate deadlines and needs
- Helped organize events for 50+ member band to improve club cohesion and retention