# Brent Michael Wooldridge

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## EDUCATION

#### **TEXAS A&M UNIVERSITY**

MAJOR: MECHANICAL ENGINEERING

MINOR: MATHEMATICS Graduation: Dec 2019

Entered college with 34 credit hours GPA: 3.50 | College Station, Texas

## CONNECT

LinkedIn://brentmw Personal Website:// brentwooldridge.com

## COURSEWORK

Heat Transfer Solid Mechanics Mechanical Engineering Design Dynamic Systems & Controls Material Selection in Design Solar Energy Engineering Alternative Energy Conversion Dynamics and Vibrations Fluid Mechanics Mechanics of Materials **Electrical Engineering** Physics Electricity & Magnetism

# SKILLS

Advanced: Intermediate:

- Solidworks
  Matlab
- Catia V5
- LabView
- AutoCADFFA
- MS Office HTML
- 3D Printing German

### OTHER

- Knowledge of various 3D printable materials
- Experience with various machine shop tools and fabrication methods

### **EXPERIENCE**

## TESLA | MECHANICAL ENGINEERING INTERN; BODY IN WHITE TEAM Sept 2017 - Dec 2017 | Fremont, CA

- Continuously improved control systems to address the quality for current/future vehicle bodies and closures.
- Worked with the metrology lab to maintain accuracy of our parts and assemblies and analyzed data to identify a problem's source.
- Learned about Tesla's manufacturing processes, datum structures, GD&T, checking fixtures, process engineering & machine shop tools.
- Designed tools and safety structures in Catia for current vehicles. One tool is now used to check door-to-fender gap and flush on the Model X.

#### **UNITED AIRLINES** | Propulsion Engineering Intern

Jan 2017 - Apr 2017 | San Francisco, CA

- Provided engineering support, checked aircraft, investigated system failures and maintenance incidents.
- Helped improve performance and reliability of turbofan jet engines, performed cost analysis, recorded data from engines used in Airbus/Boeing aircraft.
- Had the great privilege of traveling the world every weekend.

#### **RESEARCH** | STUDENT ASSISTANT

Jan 2016 - Dec 2016 | College Station, TX

- Performed research and generated models in Solidworks for various projects under Dr. Rainer Fink's supervision.
- Designed a reverse injection mold for a pregnancy patch which reads data much like that of an ultrasound.
- Created a preliminary design for the body of a hydroelectric kayak.

# EXTRACURRICULAR ACTIVITIES

#### SAE AERO | CAD/Manufacturing Team

Apr 2016 - Present | College Station, TX

- A team of 25 engineering students who design, build, and fly electric powered RC aircraft (12' span) for an int'l competition. 75 teams compete.
- Contribution: Generate models in Solidworks and build the aircraft.
- 2017 Results: Regular class 2nd Overall; Micro class 3rd Overall
- 2018 Results: Regular class 1st in Design, 3rd in Presentation, 4th in Flight

#### FORMULA SAE | VOLUNTEER TO SENIOR DESIGN TEAM

Sept 2015 - May 2016 | College Station, TX

- A team of engineering students who design, construct, and drive a Formula 1 vehicle for an international competition.
- Contribution: Assisted in cleaning and adding/removing parts from vehicles of previous competitions.