

# Brent Michael Wooldridge

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## EDUCATION

### TEXAS A&M UNIVERSITY

B.S. IN MECHANICAL ENGINEERING

MASTER'S FAST-TRACK PROGRAM

Undergrad Completion: Dec 2019

GPA: 3.50 (no rounding)

College Station, Texas

## CONNECT

LinkedIn:

[linkedin.com/in/brentmw](https://www.linkedin.com/in/brentmw)

Portfolio:

[brentwooldridge.com/Showroom](https://brentwooldridge.com/Showroom)

## COURSEWORK

Heat Transfer

Solid & Fluid Mechanics

Dynamics and Vibrations

Material Selection in Design

Mechanical Engineering Design

Dynamic Systems & Controls

Alternative Energy Conversion

Solar Energy Engineering

Mechanics of Materials

Electrical Engineering

## SKILLS

### ADVANCED:

Solidworks • CATIA • Prototyping

Surface Modeling • 3D Printing

Design • Project Mgmt • MS Office

### INTERMEDIATE:

Autodesk Alias • AutoCAD • Python

FEA (ANSYS) • Matlab • Photoshop

LabView • German

## OTHER

- Knowledge of various 3D printable materials.
- Experience with various machine shop tools and fabrication methods.
- Modest experience with electronic controls and wiring.

## EXPERIENCE

### VOLKSWAGEN | VEHICLE ENGINEERING; PILOT HALL INTERN

May 2019 - Present | Chattanooga, TN

- Support R&D in the product development, planning, and production phases.
- Create/document design changes to pre-series vehicles including EVs, analyze data after assembly and using fixtures, perform cost analysis and BOM.
- Perform RCA on defects, conduct capability tests of parts, and design fixtures.
- Verify process stability by measuring parts during production.

### TESLA | VEHICLE ENGINEERING; BODY IN WHITE INTERN

Sept 2017 - Dec 2017 | Fremont, CA

- Improved control systems to address the quality of vehicle bodies and closures.
- Maintained accuracy of parts/assemblies through RCA and D/P FMEA.
- Became proficient with manufacturing processes, datum structures, GD&T, checking fixtures, process engineering, and machine shop methods.
- Designed tools and safety structures for vehicles. One tool is now used to check door-to-fender gap/flush on Model X.

### UNITED AIRLINES | PROPULSION ENGINEERING INTERN

Jan 2017 - Apr 2017 | San Francisco, CA

- Provided engineering support, checked aircraft propulsion systems, 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.
- Designed a reverse injection mold for an ultrasonic pregnancy patch and a hydroelectric kayak hull.

## EXTRACURRICULAR ACTIVITIES

### SAE AERO DESIGN | CAD/MANUFACTURING

Apr 2016 - Apr 2019 | College Station, TX

- Team of 25 engineering students who design, build, and fly electric powered RC aircraft (12' span) for an international competition. 75 teams compete.
- Contribution: Generate models in Solidworks and build the aircraft.

### FORMULA SAE | ASSISTANT TO SENIOR DESIGN TEAM

Sept 2015 - May 2016 | College Station, TX

- Assisted in maintaining and adding/removing parts of vehicles from prior years.

## COMPETITIONS

- **2017 SAE Aero:** Regular Class - 2nd Overall; Micro Class - 3rd Overall
- **2018 SAE Aero:** Regular Class - 4th Overall (1st in US, 1st in Design)
- **2019 SAE Aero:** Regular Class - 4th Overall (1st in Design, Most Payload)
- **2019 Hackathon "HackUTD":** 4th out of 106 teams  
- EcoBin: [devpost.com/software/bin](https://devpost.com/software/bin)