Brent Michael Wooldridge

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EDUCATION

TEXAS A&M UNIVERSITY
Major: Mechanical Engineering
Minor: Mathematics
Expected Graduation: Dec 2019
Entered college with 34 credits
GPA: 3.50 (no rounding)
College Station, Texas

CONNECT

LinkedIn:
linkedin.com/in/brentmw
Portfolio:
brentwooldridge.com/Showroom

COURSEWORK

Heat Transfer
Solid Mechanics
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 • AutoCAD
3D Printing • Designing • Prototyping
Project Mgmt • Drafting • MS Office

Intermediate:
Matlab • FEA (ANSYS) • LabView
Photoshop • 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

TESLA | Vehicle 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 metrology lab to maintain accuracy of our parts/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.
- 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.
- 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 DESIGN TEAM | CAD/Manufacturing
Apr 2016 – Present | 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

- 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.

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**