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: 3.53 | College Station, Texas

CONNECT

LinkedIn:
linkedin.com/in/brentmw
Portfolio:
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
Illustrator • 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 - Aug 2019 | Chattanooga, TN

- Supported between product development, planning, and production phases.
- Assisted with ramp-up of new vehicles according to quality, volume, and cost.
- Created design changes to pre-series vehicles including EVs, analyzed trial data, and performed cost analysis for potential solutions.
- Performed RCA on defects, capability tests of parts, and designed fixtures.
- Verified 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**