Brent Michael Wooldridge

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Education

Texas A&M University — College Station, TX
Master of Engineering in Mechanical Engineering — *GPA: 4.00 - Dec 2020*
B.S. in Mechanical Engineering — *GPA: 3.53 - Dec 2019*

Experience

Volkswagen — Chattanooga, TN
Vehicle Engineering; Pilot Hall Intern — *May 2019 – Aug 2019*

- Assisted with ramp-up of new vehicles according to quality/volume/cost via the following.
- Created design changes to pre-series vehicles and analyzed trial data on production floor.
- Performed RCA on defects, capability tests of parts, and designed fixtures.
- Verified process stability by measuring parts during production.
- Supported between product development, planning, and production phases.

Tesla — Fremont, CA
Vehicle Engineering; Body in White Intern — *Sep 2017 – Dec 2017*

- 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, GD&T, and machine shop methods.
- Designed and implemented tools and safety structures for Model S/X/3.

United Airlines — San Francisco, CA
Propulsion Engineering Intern — *Jan 2017 – Apr 2017*

- Improved reliability of turbofan jet engines by identifying higher-grade components via vendors.
- Checked aircraft propulsion systems, investigated system failures and maintenance incidents.
- Performed cost analysis and recorded data from engines used in Airbus/Boeing aircraft.
- Communicated with people of various nationalities due to traveling the world every week.

Research — College Station, TX
Student Assistant — *Jan 2016 – Dec 2016*

- Performed research and generated models in Solidworks for various projects.
- Designed an injection mold for an ultrasonic pregnancy patch and a hydroelectric kayak hull.

Extracurriculars

SAE Aero Design — College Station, TX
CAD/Manufacturing — *Apr 2016 – Apr 2019*

- Team of 25 engineers who design, build, and fly an electric powered 12' span RC aircraft.
- About 75 teams compete at the annual international competition. More info at tamusae.org.
- Contribution: Generated models in Solidworks and built the aircraft via various fabrication methods.

Formula SAE — College Station, TX
Assistant to Senior Design Team — *Sep 2015 – May 2016*

- 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": EcoBin: devpost.com/software/bin (4th out of 106 teams)

Skills

Advanced: Solidworks • CATIA • Prototyping • Surface Modeling • 3D Printing • Project Mgmt • MS Office
Intermediate: Python • Alias • AutoCAD • GD&T • ANSYS • Matlab • Photoshop/Illustrator • German
Other: Experience with various 3D printable materials, machining tools/methods, and controls/circuitry.

Relevant Coursework

Advanced Product Design • Advanced CAE • Generative Art & Design • Additive and Subtractive Processes in Custom Manufacturing • Mechanical Design Engineering • Material Selection in Design • Alternative Energy Conversion • Solar Energy Engineering • Dynamic Systems & Controls