Brent Michael Wooldridge

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Education

Texas A&M University College Station, TX

Master of Engineering in Mechanical Engineering *GPA: 3.90 - Dec 2020*

B.S. in Mechanical Engineering *GPA: 3.53 - Dec 2019*

Experience

Rivian Irvine, CA

Associate Engineer II *Jan 2021 – Current*

- Gaining experience across multiple teams in the Trail engineering program to fully understand the vehicle development process and the challenges that arise from concept thru production.
- Rotations: Studio Engineering, Vehicle Packaging, Product Research Analytics, Body Exterior, Aero.
- Building seating bucks, evaluating ergonomics, developing concepts for packaging solutions, carrying out h-point tests, setting hardpoints, defining customer needs and feature content, benchmarking, performing CFD, resolving mfg. issues, creating models of innovative ideas.

Studio Engineering Intern *May 2020 – Aug 2020*

- Designed an extensively adjustable seating rig which accommodates occupant packaging from sports car to commercial van according to SAE J1100 - to be used for an immersive VR experience and aid in development of current/future vehicle programs.
- Supported the development of exterior surfaces, benchmarked competitor vehicles, and presented findings to design team in order to merge the aesthetic/functional condition into a single solution.
- Streamlined Studio's ability to reference engineering CAD as well as competitor scan data.

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 verified process stability on production floor.
- Performed RCA on defects, capability tests of parts, and designed fixtures.
- 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.

Extracurriculars

SAE Aero Design College Station, TX

CAD/Manufacturing *Apr 2016 – Apr 2019*

- Generated models in Solidworks and built the aircraft via various fabrication methods.
- 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.

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 • Ansa • MS Office

Intermediate: Alias • AutoCAD • Paraview • Matlab • Photoshop/Illustrator • Python • Polyworks

Other: Experience with various 3D printable materials, machining tools/methods, and modestly with circuitry.