BRANDON W. KING

TUSCALOOSA AL

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Education

Expected in 12/2024

The University of Alabama - Tuscaloosa, AL

Bachelor of Science: Mechanical Engineering

- 3.65 GPA
- Collegiate, Alumni Scholar, and Alumni Heritage Recipient
- Research Ambassador for the University, 2021 – 2022

Experience

08/2022 - Current

EcoCAR EV Challenge

Controls Team Lead

- Responsible for weekly team meetings and development sprints to ensure deliverables are met
- Developed path-planning neural network for lane centering with an accuracy of 95% in two sprint cycles
- Co-Developed model predictive controller in Simulink for adaptive cruise control
- Scripted and recorded multiple 50-minute MATLAB and Roadrunner videos on custom highway scenes testing autonomous driving features

Michelin

05/2023 - 08/2023

Industrial Progress Engineer Intern

- Implemented prestaging procedure for die changes to save $1,250 per shift and over $362,000 annually
- Created new work standard for cementer cleaning saving 20 minutes of lost production and $260 per cleaning
- Quantified Hot Handoffs savings of $19,500 - $49,500 to ensure operator buy in
- Compiled all tire code average run times into TPU sheet for benchmarking
- Automated skiver start up / shut down to save 5 hours per day of redundant running

08/2021 - 08/2022

Formula SAE

Powertrain Member

- Redesigned muffler and clamping system for vibration and noise reduction
- Reverse engineered shifting tank brackets in CAD to optimize topology for material savings
- Iterated on joint designs for differential carrier mounting attachments using FEA

Latest Projects

- PID Jumper Bot
- 6DOF Macro robot arm
- CNN for autopilot driving
- Apptronik motion studies

Skills

Software/Programming

- SolidWorks, Fusion360, Python, MATLAB, Simulink, Roadrunner

Fabrication

- Mill, Lathe, TIG and MIG welding