Aaron Bryce Carman

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Profile

Dedicated electrical engineering student pursuing a Ph.D. in Electrical Engineering with a focus on microwave radar technologies. Competitive, as exemplified in collegiate GPA. Motivated to succeed, highlighted by contributions to numerous projects. Quick learner, and ready to take on any task.

Employment History

Texas Tech University **Lubbock, TX**

Research Assistant *January 2018 – Present*

- Produced COMSOL simulations to analyze nanophotonic structures. Designed high-efficiency optical and phased array simulations using MATLAB and COMSOL. Implemented a new Cadence Custom IC design server and produced high-voltage analog CMOS circuits. Designed and tested high-voltage multi-channel independent control circuits. Designed and tested 5.8-GHz passive radars for high-sensitivity motion detection.

Student Assistant – Grader *August 2022 – Present*

- Worked alongside undergraduate and graduate students to improve comprehension of Analog IC design. Developed online EDA tutorials to familiarize students with Cadence software. Led technical lectures on analog integrated circuit topics.

Southwest Research Institute **San Antonio, TX**

Student Engineer *June 2019 – August 2019*

- Reverse engineering of legacy designs and creation of specification documents. Use of self-taught power electronics and electromagnetics knowledge to analyze an aircraft power supply.

Education

Texas Tech University

Doctor of Philosophy – Electrical Engineering *May 2024*
GPA: 4.000

Bachelor of Science – Electrical Engineering *May 2020*
GPA: 3.943
Summa Cum Laude with Honors

Skills

Cadence Custom IC, MATLAB, Python, C, C++, Assembly, Verilog, LTSpice, EagleCAD, KiCad, AWR, COMSOL, Microsoft Office, Windows 7-10, Linux, Mac OS, iOS, Android, Oscilloscope, DMM, Vector Network Analyzer, Spectrum Analyzer, Signal Generator, Radio Frequency Debug and Test, High Voltage Debug and Test, SMD Soldering, Safety Skills, Communication Skills, Leadership Skills

Special Awards

- Modern Radar Circuits and Systems: Best Design Project Award *May 2021*
- NSF Graduate Research Fellowship Program Honorable Mention *April 2021*
- TTU Distinguished Graduate Student Assistantship *August 2020*
- TTU Haggerton Presidential Scholar *August 2016-August 2020*