Kaushik Muthukrishnan

2800 Waterview Pkwy.
Richardson, TX 75080

Cell: (510) 298-9496
Email: kaushikmn113@gmail.com
www.linkedin.com/in/kaushikmn113/

SUMMARY Driven engineering student with a solid background in circuit fundamentals, programming, and electronic systems and simulations. Recognized for innovation, problem-solving, and the ability to collaborate across multidisciplinary teams to deliver effective design solutions. Experienced in both hardware and software aspects of electrical systems, with a strong understanding of design principles, analysis, and optimization. Skilled in developing, testing, and validating analog, digital, and mixed-signal systems with careful attention to performance, efficiency, and reliability.

EDUCATION

Master of Science in Electrical Engineering | *GPA: 4.00* — May 2026
The University of Texas at Dallas

Bachelor of Science in Computer Engineering | *GPA: 4.00* — May 2025
The University of Texas at Dallas

TECHNICAL SKILLS

Programming:	C++	Java	Python	MATLAB	
Modeling:	SPICE	Verilog	VHDL		
Software:	Altium	Virtuoso	Quartus	Vivado	
Equipment:	JBERT	Multimeters	Power Supply	Oscilloscopes	

MEMBERSHIPS

IEEE at UTD, 2022 – current
Comet Rocketry, 2023 – current

AWARDS & HONORS

Undergraduate Research Scholarship Award, 2024/2025
Patti Henry Pinch Scholarship, 2023
Murata Ideate2Innovate, 1st place, 2023
Axxess Hackathon, 2nd Place, 2023
National Merit Scholar, 2022

PROFESSIONAL EXPERIENCE

Undergraduate Research Assistant
Oct 2023 – Present
University of Texas at Dallas - NeuroSpinCompute Laboratory — *Richardson, TX*

- Created Python simulations of skyrmion propagation through VCMA logic gates
- Designed micromagnetics simulations to validate a VCMA-controlled pipelined full adder
- Contributed to four academic papers that were published in international conferences

Validation Intern
May 2025 – Aug 2025
Texas Instruments Inc. – FPD-Link — *Santa Clara CA*

- Characterized the jitter composition of a FPD-Link UH983 Serializer
- Engineered a custom PCB to impair return loss in the SERDES transmission channel
- Interfaced with HF Oscilloscopes and JBERTs using Python to automate data collection

Software Development Member
Aug 2024 – May 2025
University of Texas at Dallas – Senior Capstone Project — *Richardson, TX*

- Created a Wi-Fi mesh network of ESP32 devices for use on active-duty firefighters
- Included Bluetooth Low Energy to enable near-range communication for health sensors
- Programmed in Rust to refactor the four-year-old codebase for efficiency and new features

Payload Team Lead
Jun 2024 – May 2025
University of Texas at Dallas – Comet Rocketry — *Richardson, TX*

- Directed a team of 6 to construct an energy harvesting solenoid for a L2 rocket's payload
- Closely coordinated with other sub-teams to ensure proper interfacing with the rocket
- Planned out action items ahead of time to maximize member productivity