Ashwin Kuppahally

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Available for internship from January 2026-August 2026

Education

The University of Texas at Austin — Austin, TX

Bachelors of Science, Electrical & Computer Engineering and Biomedical Engineering — *May 2027*

- Relevant Coursework: Computer Architecture, Circuit Theory, Mechatronics, Advanced Computation, Systems Design, Network Analysis, Biomedical Design
- GPA: 3.9/4.0

Experience

Electrical Engineering Intern — May 2025 – Present

10x Genomics — *Pleasanton, CA*

- Decreased field failures by 85% by diagnosing design issue on motor driver board and conducting PCB rework
- Cut prototyping time by 50% by designing a full system test bench and conducting high potential tests of PCBs
- Improved production process by creating automated optics testing PCB and test fixture
- Analyzed over 20 returned instruments from the field and diagnosed issues which drove updated designs

Electronics Design Engineer — Aug 2024 – Present

Longhorn Racing Electric — *Austin, TX*

- Created and manufactured PCB for charging 600V car battery
- Designed custom power electronics and shutdown hardware
- Wrote embedded software enabling car power systems and CAN and SPI communication
- Modeled car charger box assembly in Solidworks, cutting weight by 40%

Electrical Engineer - Humanoid Robotics — Jan 2025 – Jun 2025

Feather Robotics — *Palo Alto, CA*

- Decreased harnessing by 30% by creating power management PCB
- Reduced time-to-market by half by designing IEEE+UL compliant electrical and safety system
- Developed robotic control and fusebox PCB to increase customer usability
- Created test plan to validate battery management board and charging electronics
- Sourced components and setup turnkey manufacturing of circuit boards, cutting costs by 50%

Robotics Engineering Researcher — Nov 2024 – June 2025

Advanced Robotic Technologies for Surgery Laboratory - Texas Robotics — *Austin, TX*

- Developed camera module PCB for robotic surgery use
- Improved thermal efficiency of power electronics by 15% by updating PCB layout
- Tested and validated circuit boards using electrical lab equipment

Projects

Electric Vehicle Charger | *KiCad, Solidworks* — Aug 2024 – May 2025

- Designed a ground up car charger capable of charging a racecar battery at 6kW
- Implemented the J1772 charging standard and used digital logic to determine vehicle state
- Created custom high-efficiency boost/buck converters for vehicle power delivery
- Simplified charging process by using CAN and SPI communication systems for charging status

Blood Assay Analysis Device | *KiCad, Solidworks, Ansys* — March 2024 – January 2025

- Designed ground up blood analysis device to test assays of at-home hemodialysis patients
- Created high current PCBs to perform light analysis of blood samples
- Modeled microfluidic components in Solidworks for blood movement and performed fluid analysis

Technical Skills

Skills: PCB design, embedded systems software, CAD (Solidworks), Spice, wireless chip communication/telemetry, circuit analysis, metal CNC, 3D printing, electronics manufacturing, structural design, composite materials, Python, MATLAB, C++