

Krishiv Aggarwal

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Objective

Fast-learning and passionate junior Computer Engineering student seeking a Summer 2026 internship in power electronics, RF systems, or embedded systems. Passionate about applying hands-on project and research experience in power conversion and wireless communication to deliver innovative engineering solutions. Eager to contribute strong technical skills in PCB design, programming, and lab instrumentation to a dynamic engineering team.

Education

Georgia Institute of Technology | Atlanta, GA

Bachelor of Science in Computer Engineering, GPA: 3.50

Aug 2024 – Present

Expected Graduation: Dec 2026

Skills

Programming: Python, C, Java, VHDL, MATLAB, C++, Assembly

Platforms: Linux (Ubuntu, Slackware, Debian), Red Hat (OpenStack, CloudForms), OpenVMS, Symbian, Solaris

Hardware: PCB Design (KiCad, Altium), Analog/Mixed-Signal Circuits, Oscilloscope, Logic Analyzer, Soldering (through-hole & SMT)

Software: SolidWorks, Quartus Prime, ModelSim, Git, Excel (automation/macros), Neo4j, GitHub

CAD & Fabrication: Fusion 360, SolidWorks, SLA/SLS/FDM 3D Printing

Technical Focus Areas: Power Electronics (DC-DC Converters, Gate Drivers), RF/Beamforming, Embedded Systems, Digital Design

Experience

Hyve Solutions | Fremont, CA

May – Aug 2025

Hardware Engineering Intern

- Conducted rigorous failure testing on server hardware, identifying critical failure modes and enabling design improvements that enhanced system reliability.
- Developed an automated debug pipeline using Python scripts, Excel macros, and a Neo4j graph database to expedite fault analysis, reducing diagnostic time by ~30%.
- Optimized the testing workflow by integrating automation into the QA pipeline, cutting overall validation cycle time by 25% and improving cross-team feedback loops.

Research

Vertically Integrated Projects (VIP) | Atlanta, GA

Aug 2025 – Present

Power Electronics | Undergraduate Researcher

- Designed and tested a DC-DC boost converter (10→20 V, 200 mA) on a custom PCB, implementing gate drivers and PWM control (10–90% duty) to deliver a stable 20 V output.

ECE Undergraduate Research Atlanta, GA

Aug 2025 – Present

RF Beamforming | Researcher

- Synthesized a Rotman lens with three focal points and optimized non-focal phase error via S-parameter simulations; leveraged MATLAB to improve beamforming accuracy for target directions.

Projects

CubeSat Program | Stanford Student Space Initiative (SSI)

May 2022 – June 2024

Electronics Lead

Worked on a student-led nanosatellite team to design, build, and launch a CubeSat. Team-based, cross-functional project spanning electronics, structures, and mission ops.

- Designed CubeSat solar board, flight controller, and RF modules in KiCad, ensuring power and communication requirements.
- Built a custom pick-and-place machine and reflow oven, reducing assembly cost to <\$2,000.
- Led avionics testing and verification, resulting in a successful launch on the Falcon 11 mission.
- Presented design and mission results at the National CubeSat Conference.

Relevant Coursework

Circuit Analysis, Digital Design, FPGA/VHDL, Signals & Systems, Embedded Systems, MATLAB, Multivariable Calculus, Differential Equations

Leadership & Awards

Student Government | Deputy Joint Vice President of Finance

January 2016 – May 2017

- Rewrote and reworked the entire policy documents reducing student fees by 7.2% yet still resulting in a 45% increase in funding per student org.
- Started 4 new community initiatives improving student lives.