

KRISH MEHTA

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SUMMARY

Available: Internship | Co-op | Full-time

Electrical Engineering MS student at NYU Tandon seeking internships and co-ops in hardware, embedded systems, test and validation, IC design, and FPGA design. Hands-on from schematic to tested hardware across power electronics, PCB design, embedded firmware, and CMOS circuit design.

EDUCATION

New York University, Tandon School of Engineering

Brooklyn, NY

Master of Science, Electrical Engineering

Aug 2026 – May 2028 (Expected)

– Coursework: Advanced Hardware Design (FPGA), Introduction to VLSI Design, Real-Time Embedded Systems

The Pennsylvania State University

University Park, PA

Bachelor of Science, Electrical Engineering, GPA: 3.53/4.00

Aug 2023 – May 2026

– Certificate in Semiconductor Manufacturing and Microelectronics

– Coursework: Electronic Circuit Design I & II, Digital Integrated Circuits, Analog IC Design, Integration & Packaging of Electronic Systems, Energy Storage Systems, Linear Control Systems, Engineering Electromagnetics

TECHNICAL PROJECTS

BLDC Motor Controller for Electric Vehicle (Senior Design) | *Power Electronics, KiCad, ESP32*

Jan 2026 – May 2026

- Designed a 10 kW, 1,000 RPM BLDC motor controller for EV deployment in Kenya, built around a three-phase MOSFET inverter in a 100×60 mm drive stage
- Captured the schematic, selected components, and laid out the KiCad PCB for the power stage and gate drive
- Wrote ESP32 PWM commutation firmware and validated switching on the bench with an oscilloscope and DMM

Custom Standalone Microcontroller Platform | *ATmega328P, PCB Design, DFM*

- Took an Arduino-compatible ATmega328P board through six DFM-driven PCB revisions, cutting board area by 40% and cost by 80% versus off-the-shelf boards
- Hand-assembled and brought up each revision, tracing power and programming faults with an oscilloscope and DMM

2x2 Phased Array Antenna System (Junior Design) | *KiCad, Python, Raspberry Pi, Pluto SDR*

Aug 2025 – Dec 2025

- Designed and fabricated a 2x2 microstrip phased array with digital phase shifters, steering the beam 25° at 2.4 GHz
- Automated phase-sweep measurements in Python with a Raspberry Pi controlling a Pluto SDR over SPI

8-Bit Pipelined Adder, Design & Layout | *Cadence Virtuoso, CMOS Layout, DRC/LVS*

Dec 2025

- Designed an 8-bit pipelined CMOS adder at the transistor level, applying timing optimization to reduce worst-case delay
- Completed schematic capture, CMOS layout, DRC/LVS verification, and post-layout simulation

Fully Differential CMOS Op-Amp | *Cadence Virtuoso, Spectre, AMI 0.6 μ m*

July 2025

- Designed a fully differential CMOS op-amp with common-mode feedback reaching 60 dB gain, 60° phase margin, and 50 MHz GBW at 3.2 mW
- Sized transistors and bias networks and verified the design with DC, AC, and transient simulations in Spectre

EXPERIENCE

Lab Assistant, Circuits & Devices

Jan 2025 – May 2026

Penn State School of EECS

University Park, PA

- Debugged wiring, biasing, and instrumentation faults in student circuit builds every week using oscilloscopes, DMMs, and function generators
- Mentored 150+ students per semester on circuit theory and bench instrumentation

Grading Coordinator

Aug 2024 – May 2026

Penn State School of EECS

University Park, PA

- Led and scheduled a team of 15 graders, keeping grades and course content on time for 1,500+ students
- Produced instructional videos, delivered substitute lectures, and ran exam reviews

Founder & Owner

Nov 2022 – July 2023

Krish Makers 3D Printing Services

Hyderabad, India

- Consulted with customers and prepared quotes for custom 3D printing jobs, setting pricing and holding a 5-day delivery on every order
- Ran sourcing, scheduling, and pricing end to end, reaching 75% gross margin and 45% net profit

TECHNICAL SKILLS

PCB & Hardware: KiCad, Altium Designer, EasyEDA, Ultiboard, Schematic Capture, Multi-layer PCB Layout, DFM, PCB Assembly, Board Bring-Up, Soldering

Embedded: Embedded C, C++, ESP32, ATmega328P, dsPIC33, Raspberry Pi, ARM Cortex-M / STM32 / nRF52840 and RTOS, UART, SPI, I2C, PWM, ADC/DAC, Interrupts, MQTT, Bluetooth

IC & FPGA: Cadence Virtuoso, Spectre, CMOS Layout, DRC/LVS, ASAP7 FinFET, Vitis HLS and Vivado

Power & Controls: MOSFET Power Stages, Gate Drive, BLDC Motor Control, LTspice, MATLAB/Simulink, Linear Control Systems

Test & Lab: Oscilloscope, DMM, Function Generator, LabVIEW, Python Test Automation

Software: Python, MATLAB, R, SolidWorks, ANSYS