

Keyur J. Rana

keyur.rana001@gmail.com | (201)-893-1419 | [linkedin.com/in/KeyRana](https://www.linkedin.com/in/KeyRana) | keyur123222.github.io/website/

EDUCATION

Rutgers, The State University of New Jersey, School of Engineering

Bachelor/Master of Science in Electrical Engineering

Cumulative GPA: 3.587

Honors: Dean's list - 7 Semesters

New Brunswick, NJ

Graduation date: May 2025

WORK EXPERIENCE

L3Harris Technologies, Inc.

Rochester, NY

Systems Intern

(May. 2023–Aug. 2023)

- Conducted comprehensive testing of over 50 military radios, evaluating performance across 3 different RF and HF communications waveforms.
- Collaborated with a cross-functional team of 8 engineers to troubleshoot and resolve technical issues, enhancing radio reliability and functionality.
- Developed and executed demonstrations for three international customers, showcasing effective utilization of radios for specific operational requirements, including RF and HF applications.

Greenman-Pedersen Inc.

Suffern, NY

Electrical Intern

(Jun. 2022–Aug. 2022)

- Performed field investigation tasks for 3 assigned projects to ensure the project met the budget, timeline, and quality requirements.
- Constructed riser diagrams for the fire alarm system using AutoCAD for a 14-story building, updating the outdated fire alarms and improving the safety standards.
- Developed symbol standards and commissioned 30+ electrical drawings for project system designs.

PROJECT EXPERIENCE

Flappy Bird - VHDL

(Jan. 2024–Apr. 2024)

- Developed a Flappy Bird game on a Zybo Z7 FPGA board using VHDL, showcasing proficiency in hardware description languages and embedded system design.
- Implemented finite state machine architecture to manage game states efficiently, ensuring smooth gameplay experience.
- Utilized single-port ROM to store 480x480 pixel image, optimizing memory usage for graphical data storage.
- Integrated VGA timing and RGB to DVI IP block for HDMI output, enhancing visual display compatibility.

NASA HUNCH Design and Prototype National Finalist

Collapsible Sleeping Quarters

(Sep. 2018–Jun. 2020)

- Managed and coordinated with a 20-member team and presented progress and ideas regularly to the Project Manager.
- Designed and developed a prototype of the collapsible sleeping quarters for the ISS with a budget of \$150.
- Took the initiative in building a control panel for monitoring ventilation, CO/CO2 readings, and crew health.
- Achieved favorable recognition by applying automation to a design presumed to be manual.

LEADERSHIP EXPERIENCE

Formula Racing - Rutgers

(Sep. 2021–May. 2022)

Electric Powertrain

- Research ways to monitor and identify faulty voltages of individual battery cells from a large Li-ion battery pack.
- Design vehicle's low-voltage and high-voltage systems from 12V to 400V.
- Communicate and collaborate with sub-teams to run tests and discover potential malfunctions.
- Fundraised \$22,000+ through football concession stands, demonstrating excellent customer service.

SKILLS

Software

- Python, Cadence, LTSpice, MATLAB, Multisim, AutoCAD, RISC-V, C/C++, HTML, CSS, Java, ROBOTC
- Certified Autodesk Inventor User, CAD
- Microsoft Suite

Hardware

- VHDL, FPGA, RF, Analog, DSP, Power, Circuit design, CNC milling, Power Supply, Oscilloscope, Function Generator, Multimeter
- Competent proficiency in implementing VEX, TETRIX, and Microcontrollers

Language

- Hindi, Gujarati, English