

# LUCKY PRAJJWAL SHRESTHA

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## EDUCATION

**University of Houston, Cullen College of Engineering** - Houston, Texas

**Expected Graduation Date:** May 2026

*Master of Science in Electrical Engineering* (Relevant Coursework: Adv. Computer Architecture, Microprocessor)

**Tribhuvan University** – Kathmandu, Nepal

**Graduation Date:** Aug 2023

*Bachelor of Engineering in Electronics, Communication and Information Engineering (CGPA:3.54)*

## WORK EXPERIENCE

**Graduate Hardware Engineering Intern** – Dell Technologies

Round Rock, TX (May 2025 – Aug 2025)

- Analyzed existing PCIe bus fatal errors in Dell PowerEdge Servers and suggested corrective actions for respective types of errors in PCIe devices to reduce associated dispatch expenses.
- Collected all the requirements from the respective stakeholders to design a solution to reduce expenses.
- Complied the solution as a web-based standalone tool for tech support personnel or other engineers for further use cases.

**Research Assistant** – Advanced Imaging and Sensing Lab (UH)

Houston, TX (Sep 2024 – May 2025)

- Designed and 3D Modeled a microcontroller module that could interface any I2C sensor modules in the same port which could be readily used in any applicable projects.
- Analyzing the working of new IC and Chemical Digestion Machine resulting in smooth operation of the processes.

**Electronics Engineer** - Trade Nepal Multipurpose Solution

Kathmandu, NP (Jan 2021 – Dec 2023)

- Implemented temperature-controlled systems for a closed-loop solar water heater system.
- Designed solar panel and inverter systems, open-loop and closed-loop heating systems, and some home automation
- Analyzed and repaired the circuits and electronics of appliances like chimneys, water purifiers, televisions, and more.

## RELEVANT PROJECTS

**Traffic Anomaly Detection and Alert System**

Dec 2022

- Researched the traffic network in Kathmandu and conducted feasibility analysis using AI on such road networks.
- Designed and developed the system using the YOLOv3 algorithm to identify multiple traffic anomalies.
- Configured a CCTV camera network and integrated it with Raspberry Pi 4 to process real-time video and detect & alert any kinds of vehicular anomalies in real-time assisting the traffic in their operation.

**Implementation of 8-bit ALU using FPGA**

May 2022

- Realized and implemented logic gates and arithmetic operations using VHDL language in FPGA.
- Used Vedic Multiplication and Matrix multiplication which improved the performance of the operation.

## LEADERSHIP AND COMMUNITY SERVICE

**President** - KEC Robotics Club

Kathmandu, NP (Feb 2022 – Jun 2023)

- Started organizing 'Technocruise', an annual national-level event as a zonal event for Techkriti, IIT Kanpur, which received 80+ participants for 3 different categories.
- Mentored 100+ students and colleagues on their projects and competitions encouraging them to continue their interest in electronics and robotics.

**Hardware and Robotics Coordinator** - Engineers Vlogs

Kathmandu, NP (2022 – Dec 2022)

- Delivered workshops on Robo-war and Robo-soccer to attendees of the "Orbit Engineering Expo" sharing expertise and knowledge with attendees in collaboration with Techfest, IIT Bombay.

## SKILLS

**Certifications:** Certificate of Registration of General Registered Electronics, Communication, and Information Engineer; Nepal Engineering Council (NEC), Regd no.: 82082, Issued: 12/15/2023

**Training:** Efficient Solar Thermal Hot Water System organized by Building Energy Efficiency in Nepal (BEEN) Project, funded by European Union under SWITCH-Asia Grant Programme, 26/09/2023

**Technical:** MySQL, C, C++, Python, Machine Learning, PCB Design, 3D modeling, electronic circuits and sensors implementations, IoT systems, CUDA, ROS2, ROS2 Navigation, SLAM, PCIe, Scripting, IMPI Specs, UART, SPI

## HONORS/AWARDS

Engineering Dean's Masters Scholarship, 2024

Aug 2024 – May 2025

Best Robot Design, FPV Ground Race Competition

Jul 2022

2<sup>nd</sup> topper in the first year / 1<sup>st</sup> semester

Feb 2021

1<sup>st</sup> - Balloon Burst, 2<sup>nd</sup> - Robo-drift 6.0 and Robo-maze 1.0 Competitions

Jul 2019