

EDUCATION

Bachelor's Degree in Electronics and Communication Engineering

Tribhuvan University, Institute of Engineering, Pulchowk Campus, Aggregate: 69.68%

2017 – 2022

Lalitpur, Nepal

Higher Secondary Education (10+2)

Kathmandu Bernhardt College, Aggregate: 78.30%

2015 – 2017

Kathmandu, Nepal

PROFESSIONAL EXPERIENCE

Embedded System Engineer (Vehicle Software)

Yatri Design Studio

2021/04 – present

Kathmandu, Nepal

- Completed the development of a comprehensive Over-The-Air software project for embedded systems in bikes and charging stations
- Created an internal server for charging stations to optimize functionality
- Programming for a one-wire temperature sensor, handlebar push buttons, OBD Flash, Automatic Driving Assistance System, MMC interfacing

Communication Officer

Yatri Energy, Supported by USAID- Urja Nepal

2023/07 – present

Kathmandu, Nepal

- Maintain database of Yatri Energy Public Charging Station Project
- Organize an EV Focus group study program among the EV-concerned authorities and users in Nepal

Intern

Yatri Design Studio

2021/12 – 2022/04

Kathmandu, Nepal

- Conducted a research-oriented internship focusing on Over-The-Air programming using C/C++ languages
- Successfully developed a custom bootloader in the STM32 series, enabling the flashing of new application code received through UART

Hardware Designer and Embedded System Programmer

Robotics Club, Pulchowk Campus

2018 – 2020

Lalitpur, Nepal

- Contributed to PCB design, fabrication, and testing for the electronics hardware of robots participating in ABU ROBOCON 2019 and 2020
- Coding for rotary encoders, enhancing the robot's path navigation within the game field

Social Media Manager and Content Creator

IEEE-Pulchowk Student branch

2021 – 2022

Lalitpur, Nepal

- Facilitated communication across various departments to compile guest lists and distribute event invitations to students, faculty, and external guests
- Developed and executed engaging content strategies for the Facebook page, consistently sharing event updates and news to drive audience engagement and reach

Newsletter Editor

IEEE-Pulchowk Student branch

2020/02 – 2020/12

Lalitpur, Nepal

- Responsible for addressing the queries regarding our committee, events, memberships
- Assisted in the conduction of technical events like tech talks and blood donations

Avionics system designer, Team Member




NEAR Aerospace

2020/08 – 2020/12

Lalitpur, Nepal

- Contributed to the design and production of data acquisition modules
- Conducted research focused on enhancing control systems for optimized and safe aircraft landings

PROJECTS

Disinfectant Robot  <i>Funded by Nepal Academy of Science and Technology (NAST)</i> <ul style="list-style-type: none">Contributed to a COVID-19 biomedical research initiative by designing, fabricating, and programming the embedded system for a disinfectant robot.Executed PCB design, developing the robot's core infrastructure, and engineered a 2D disinfectant spray mechanism controllable via Bluetooth-enabled mobile app.	2020/07 – 2021/06
Automatic Modulation Classifier using DL  <i>Final Year Project, Pulchowk Campus</i> <ul style="list-style-type: none">Developed an intelligent system utilizing Deep Learning models to classify modulation types within noisy signalsImplemented RNN with LSTM architecture and experimented with variations like Bi-LSTM, assessing the impact of attention layers on classification accuracy	2021/05 – 2022/04
Simultaneous Localization And Mapping (SLAM)  <ul style="list-style-type: none">Implementation of tiny SLAM algorithm using turtlebot3 packages provided by ROS and aided by simulating as well as visualizing toolsDeployed the Particle Filter for optimizing the position of the bot on the map	2020/11 – 2021/02
Hand gesture controlled car <ul style="list-style-type: none">Motion-controlled miniature vehicle from a distance using a gyro module, Bluetooth, and Arduino	2018/01 – 2018/02
Rockbye Baby <i>AI powered Smart Cot</i> <ul style="list-style-type: none">Winner of LOCUS Project Competition - SDG 3 category, LOCUS 2020Designed a moisture sensor using a 555 timer	2020/01 – 2020/02





VOLUNTEER AND LEADERSHIP

IEEE Student Branch <i>Committee Member</i> <ul style="list-style-type: none">The first batch of committee memberOrganized multiple programs like webinars, blood donations, weekly tech talks	2020/02 – 2022/04 Pulchowk Campus
Instructor/Mentor <i>Locus 2019/2020/2022</i> <ul style="list-style-type: none">Contributed to teaching both fundamental and advanced hardware coursesTopics covered Breadboarding, Arduino, Soldering, Sensors, Motors, PCB design, fabrication, and programming	2019 – 2022 Pulchowk Campus
Instructor/Mentor <i>Godawari Residential School</i> <ul style="list-style-type: none">Mentored middle school students for their science exhibition regarding technical projects conducted by Robotics Club, Pulchowk Campus	2020/01 – 2020/02 Godawari, Lalitpur

SKILLS

C/C++, Python, KICAD, PCB Designing, Robotics, ROS, Embedded Systems

COURSES

3rd Nepal Winter School in AI, 2021 <i>Nepal Applied Mathematics and Informatics Institute for Research</i>	2021/12 – 2021/12
AWS Academy Cloud Foundations [5459] 	2021/10 – 2021/12
Deep Learning Specialization 	2021/08 – 2021/10
RADAR  <i>Pulchowk Campus</i> <ul style="list-style-type: none">Elective I	2021/05 – 2021/08
Machine Learning by Stanford University 	2021/06 – 2021/07