

UPESH UPRETI

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ABOUT ME

I am a highly motivated individual, dedicated to continuously improving my skills and advancing in my career. My creativity and ability to generate innovative ideas are my strengths. With excellent communication and networking skills, I thrive both in team environments and when working independently. I manage pressure effectively and excel at multitasking, consistently following instructions and delivering high-quality results. As a skilled electronics engineer with three years of experience in software development, robotics, IoT device development, drone mapping, surveying, and inspection, I bring a comprehensive skill set to any professional setting.

WORK EXPERIENCE

Airlift Technology Pvt. Ltd.

Tebahal, Kathmandu

Research and Development Engineer

December 2023 - Present

- Conducted drone surveys and mapping for clients: Urban Planning, Construction, Agriculture.
- Designed and developed: Robotics solution for tight space and pipeline inspection.
- Provided workshops and seminar: Basic robotics, Programming and Drone design and development to various school in "Book Free Friday" initiative of KMC.
- Conducted manual and autonomous UAV flights for clients: Aerial inspection, Surveillance etc.
- Conducted test flight of Dji Flycart-30 drone for Everest cleanup project.

Marbi Tech Industries Pvt. Ltd.

Kalanki, Kathmandu

Software Developer and Electronics Engineer

July 2022 – December 2023

- Designed and developed various software solutions for clients.
- Designed and developed electronic circuits: Robotics, Embedded systems, Industrial automation.
- Programmed and tested microcontrollers: Robotics, Automation systems.
- Provided workshops and seminar: Basic robotics, Programming and Logic Development.
- Collaborated with cross-functional teams to develop innovative solutions for clients.

Institute of Natural Medicine

Paknajol, Kathmandu

Web Developer and IT Officer

June 2021 - May 2022

- Designed and developed website of the company.
- Managed the social media of the company.
- Recommend and consult with the company on the most appropriate technology solutions.
- Managed the networking setup, troubleshooted network issues, installed software on computers, and maintained computer hardware and other office equipment.

Advanced Robotics Club

Kupandole, Lalitpur

Research Head

July 2018 - December 2020

- Led in the design, development, and implementation of different innovative ideas.
- Took part in many events and competitions.
- Conducted "Technorion Nepal 2019", selection for Techfest-2020 IIT Bombay for Nepal, as a vice event-coordinator.
- Build a Humanoid Robot called "Qarishma"- a pamphlet distributing robot for the marketing purpose of college.

EDUCATION

Advanced college of Engineering and Management, Tribhuvan University

Bachelor in Electronics and Communication Engineering

Kupandole, Lalitpur

September 2016 – April 2021

Arniko Awasiya College

+2 Computer Science

Biratnagar, Morang

June 2014 - June 2016

SKILLS

- Experience in developing REST APIs using nodejs, mysql, mongodb, and deploying in nginx server.
- Experience in developing basic cross-platform mobile application with Flutter.
- Experience with microcontrollers: Arduino and Raspberry Pi, ESP32.
- Familiar with communication protocols: Bluetooth, Wi-Fi, UART, SPI, I2C, CAN.
- Experience with programming language: C, C++, JS.
- Proficient in designing and developing multi-rotor and fixed-wing drones: ArduPilot, Pixhawk, Agri-Assistant, DJI SDK.
- Experience in conducting drone surveys, mapping, and inspection: Pix4D, Agisoft-Metashape.
- Ability to troubleshoot and debug hardware and software issues.
- Strong analytical, problem-solving, and decision-making skills.
- Excellent verbal and written communication skills.
- Ability to work independently and in a team environment.

PROJECTS

- Drone mapping, Kathmandu Metropolitan City-30, KMC-10 and KMC-25 from January 2024 – Present.
- Everest Cleanup project (Take oxygen cylinders and other supplies from Everest Base Camp to Camp-1 and bring back trash from Camp-1 to EBC), April 2024 – May 2024.
- 3-kilometer penstock pipe inspection of a hydropower plant, March 2024.
- Drone mapping, Gorushinge-Chandrauta road section, December 2023.
- Automatic overhead and underground water level controller November 2022.
- Green house monitoring and controller using IoT July 2022-September 2022.
- Cloud based IoT for home automation and security using Nepali voice command, Engineering Major Project, 2020.
- Humanoid Robot "Qarishma", June 2019 - July 2019.
- Autonomous vehicle speed limiting system, Engineering Minor Project, 2017

PERSONAL INFORMATION

- Language: Nepali (native), English (proficient), Hindi (intermediate)
- Nationality: Nepali

REFERENCES

Available upon request.