Srijan Khadka

Bhaktapur, Nepal

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EDUCATION

Kathford International College of Engineering, Tribhuvan University, Nepal

2020-2025

Bachelor of Engineering in Electronics, Communication, and Information Engineering (76.19%)

EXPERIENCE

EShikshalaya Edutainment - Nepal

Jan 2025 - May 2025

Chief Executive Officer

- Progressed from Volunteer to CEO through roles as Chief Trainer and Head of IoT.
- Launched the **EShikshalaya Innovation Kit**, an educational robotics and electronics kit for school-level STEM learning.
- Designed and led the **SEE Success Sutra** course, a structured academic support program for SEE (Grade 10) students.
- Managed and executed a 15-week national GK Quiz competition with an NPR 5 Lakh prize pool.
- Oversaw the development of an online learning platform with 1500+ students.

RoboKath - Kathford International College of Engineering, Nepal

May 2023 – Apr 2024

Project Supervisor and Mentor

- Led training programs for 100+ students on robotics fundamentals and embedded system design.
- Supervised hands-on projects using Arduino, Raspberry Pi, and sensor-based automation.
- Mentored junior trainers and managed team coordination for technical workshops and competitions.

The BotMinds Robotics Team - Nepal

Jan 2022 - Present

Co-Founder & Robotics Engineer

- Founded and led a competitive robotics team that secured 55+ national and international titles.
- Represented Nepal at IIT Bombay, IIT Patna, and other top institutions in robotics competitions.
- Promoted STEM education through outreach programs, inspiring over 500 students across Nepal.

ACADEMIC & TECHNICAL PROJECTS

Deep Learning Based Real Time Waste Segregation Using Robotics Arm

Aug 2024 - Mar 2025

Final Year Engineering Project

- Designed and implemented a real-time smart waste segregation system using YOLOv9 for object detection.
- Used **Raspberry Pi 4B** for image processing and classification, and **Arduino Uno** to control a robotic arm.
- Integrated conveyor belt mechanism for automated waste intake and sorting.

Technologies: YOLOv9, Python, OpenCV, Raspberry Pi, Arduino

Surveillance and Rescue Rover

Aug 2023 – Mar 2024

3rd Year Minor Project

- Developed a remote-controlled rover with live video streaming using a Raspberry Pi and a camera module.
- Enabled surveillance and monitoring through a web-based interface over Wi-Fi.
- Integrated motion detection and obstacle avoidance features using ultrasonic sensors.
- Demonstrated applications in security, disaster response, and reconnaissance.

Technologies: Raspberry Pi, Python, Arduino

CERTIFICATIONS

- AWS Academy Graduate AWS Academy Cloud Foundations Issued by Amazon Web Services (AWS) link
- Relational Database Certification FreeCodeCamp.org <u>link</u>
 Covered SQL, data modeling, schema design, and relational database principles.
- CanSAT Training Program NAST Nepal (Trained by Orion Space)
 Hands-on experience with telemetry systems, sensor integration, and satellite payload simulation.
- Basic Electronics Training RoboKath, Kathford International College of Engineering Focused on circuit theory, breadboarding, and electronic component handling.
- Arduino Training RoboKath, Kathford International College of Engineering
 Covered embedded C programming, sensor interfacing, and microcontroller-based system design.

SKILLS

Programming Language: Python, C/C++, JavaScript
 Web Development: HTML, CSS, Tailwind CSS

Cloud: AWS

Machine Learning & CV: YOLO, OpenCV, TensorFlow, Scikit-learn

Databases: PostgreSQL, MySQL

Embedded Systems: Arduino Uno, ESP32, Raspberry Pi **Design & Prototyping Tools:** KiCAD, Tinkercad, Proteus

ACHIEVEMENTS

- Secured 55+ robotics titles across 30+ national and international competitions
- Recipient of the Golden Jubilee Scholarship from the Indian Embassy in Nepal for academic excellence during undergraduate studies.