

Shiva Shrestha

Electronics Communication and Information Engineer

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 [Shiva Shrestha](#) |  [Shiva Shrestha](#)

Gaindakot-2, Nawalparasi, Gandaki, Nepal

OBJECTIVE

An Electronics, Communication, and Information Engineer with a strong electronics and information engineering foundation, specializing in embedded systems and automation. Experienced in mechanical drawing interpretation, PCB layout analysis, and schematic review; and practical experience in electronics testing, debugging, and system-level troubleshooting. Additionally, I'm quite interested in machine learning and how it might improve automation and embedded system applications.






WORK EXPERIENCE

- **Yarsa Tech**  April 2024 - August 2024
Electronics Engineer Pokhara, Nepal
 - Engineered an ESP8266-based audio playback system, integrating SPI flash for efficient storage and a DAC for high-quality audio output.
 - Designed and developed an STM32-based storytelling toy, delivering an interactive and engaging user experience.
 - Built a cloud printing solution using Raspberry Pi, embedded Linux, CUPS, and MQTT, enabling seamless remote printing capabilities.
 - Automated barcode printing by scripting custom solutions, optimizing the printing workflow and reducing manual intervention.

EDUCATION

- **Tribhuvan University, Institute of Engineering, Western Regional Campus** Nov 2019- Apr 2024
Bachelors of Engineering in Electronics, Communication and Information Pokhara, Nepal
 - Percentage: 82.32%
- **Gaindakot Namuna Secondary School** 2017-2019
High School Nawalparasi East, Nepal
 - CGPA: 3.69/4.00
- **Continental English Boarding School** 2017
Secondary Education Nawalparasi East, Nepal
 - GPA: 3.55/4.00

PROJECTS

- **Automated Delta Waste Classifier** May 2023 - Feb 2024
Tools: Arduino, Python, TensorFlow, OpenCV, C 
 - Led a team in the development of an innovative waste sorting system for the final year Bachelor's project. Designed and implemented a delta arm mechanism to classify waste items into various categories.
- **Sagarmatha Fruit store landing website** Jan 2024 - Feb 2024
Tools: React JS, TailWind, NodeJS, Mongo DB 
 - Developed a simple and visually appealing landing page for a local fruit store. Designed and implemented an intuitive navigation structure for showcasing products and providing store location information.
- **Robotic Arm** JAN 2023
Tools: Arduino, C, OpenCV, Python, Sci-kit learn 
 - Developed a robotic arm as a demonstration model to showcase the application of automation in performing tasks hazardous to human workers.
- **Smart Home System** JAN 2023
Tools: Arduino, C, Flutter, Firebase 
 - Developed and implemented a sophisticated automated door access system featuring RFID identification for secure entry and integrated a gas detection system to identify and alert against harmful gases within the environment.
- **Airlines Management System** OCT 2022
Tools: NodeJS, MySQL, CSS, HTML 
 - Led a team of four to develop a web application for Database management project where we developed a comprehensive Airline Management System as a significant project, demonstrating proficiency in database design and management.

PUBLICATIONS

C=CONFERENCE, J=JOURNAL

[C.1] Shiva Shrestha, et al. (2024). **Deep Learning for Waste Management: Leveraging YOLO for Accurate Waste Classification**. In *15th IOE Graduate Conference*, Vol. 15, May 2024. ISSN: 2350-8914 (Online), 2350-8906 (Print).

[J.1] Prateek Paudel, Samman Shrestha, Shiva Shrestha, et al. (2024). **Automated Waste Sorting with Delta Arm and YOLOv8 Detection**. *IRO Journals*, Vol. 6, Issue 3, Article 4. DOI: 10.36548/jaicn.2024.3.004

SKILLS

- **Programming Languages:** C, C++, JavaScript, Python
- **Web Technologies:** ReactJS, NodeJS, TailWind, Sass, CSS
- **Database Systems:** MySQL, Firebase
- **Data Science & Machine Learning:** NumPy, Pandas, Scikit-learn, TensorFlow, PyTorch, Matplotlib
- **DevOps & Version Control:** Git, GitHub
- **Hardware and Embedded system:** Embedded Linux(BuildRoot, and Yocto), Arduino, ESP32 & ESP8266, STM32, RaspberryPI, Kicad, Keil Microvision

HONORS AND AWARDS

- **Top of the 2024 Batch in Electronics, Communication and Information Engineering** July 2024
Western Regional Campus, IOE, TU
- **Winner** March 2024
Project Demonstration, NSU, WRC
- **Winner** February 2024
Project Expo competition, E-GEN, WRC
- **First Runner Up** January 2024
Datathon, ICES, WRC
- **Winner** January 2023
Project Demonstration, MechTRIX, Pulchowk Campus
- **Topper in Nawalparasi District in NEB +2 Science Faculty** 2017
Gaindakot Namuna Secondary School

VOLUNTEER EXPERIENCE

- **Coordinator of Battle for Speed 2022** July 2022
Robotics Club, WRC
- **Core Committee member of Rainy Session 2022** June 2022
Robotics Club, WRC

COLLEGE EXPERIENCE

- **Senior Member** May 2023 - April 2024
Robotics Club, WRC
- **Design Transformer, Booster Committee** May 2022 - April 2023
Robotics Club, WRC
- **Member** May 2021 - April 2022
Robotics Club, WRC

ADDITIONAL INFORMATION

Languages: English (Fluent), Nepali (Fluent), Hindi (Intermediate)
Interests: Football, Video Games, Reading, Writing, Traveller

REFERENCES

1. **Prashant Bhatta**
Chief Technical Officer
Yarsa Tech
Email: bhattaprashant00@gmail.com
Phone: +977-9865609712
Relationship: Manager/ Supervisor

2. **Smita Adhikari**
Assistant Professor
Western Regional Campus
Email: smita@wrc.edu.np
Phone: +977-9846083971
Relationship: Supervisor(Major Project), Professor