

Seemron Neupane

Electronics & Communication Engineer

 Lalitpur, Nepal

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Education

Bachelor of Engineering in Electronics, Information and Communication

Tribhuvan University

Pokhara, Nepal

May 2025

Relevant Coursework: Data Structures, Algorithm Design, Artificial Intelligence, Database Management, Big Data, Computer Architecture, Advanced Calculus, Analog and Digital Signal Processing, Wireless, Radio Frequency and Microwaves, Telecommunication, Antenna and Parameters

Experience

Test Engineer

OPPO India Pvt. Ltd.

Kathmandu, Nepal

November 2025 – Present

- Use log and debug tools such as QXDM and MTK Logger to capture system logs and analyze software issues in unreleased devices.
- Conduct full functional testing of new smartphone models, including camera, Bluetooth, Wi-Fi, GPS, fingerprint, face unlock, sensors, speakers, and charging systems.
- Perform network behavior testing for 4G/5G, checking VoLTE/VoWiFi registration, call setup success, call drops, and handover stability.
- Test Android OS upgrades and OTA packages by flashing new builds, validating feature stability, checking for app crashes, heating issues, battery drain, and performance regressions.
- Execute stress and stability tests such as long-duration calls, repeated reboot cycles, multitasking pressure tests, and overnight data usage checks to ensure system reliability.
- Record and report issues using bug tracking platforms, providing clear reproduction steps, logs, screenshots, and analysis for developers.
- Validate fixes in updated builds by re-testing the same scenarios across different environments and confirming issue resolution.
- Coordinate with R&D, software teams, and field testers to ensure smooth performance and readiness of the device before launch.

Radio Frequency Analyst and Drive Test Engineer

Huawei Technologies Nepal Co. Pvt. Ltd.

Kathmandu, Nepal

May 2025 – October 2025

- Perform RF optimization for GSM, WCDMA, and 4G networks through drive test analysis, KPI monitoring, and trend evaluation.
- Analyze network performance to identify and troubleshoot coverage gaps, interference, and call drop issues.
- Recommend and implement parameter tuning to enhance CSSR, DCR, throughput, and overall QoS.
- Utilize Genex Probe, Google Earth Pro, and Huawei internal analytics tools for detailed reporting and visualization.
- Performed field testing at Huawei using TEMS Pocket under NTA guidelines, covering MOS evaluation, idle mode testing, DL/UL throughput measurement, and Ookla-based speed verification.
- Collaborate closely with network planning and field teams to optimize network performance and elevate user experience.
- Learning 4G/5G feature rollouts by analyzing traffic patterns and proposing parameter adjustments.

Electronics Engineer Intern

Yarsha Tech Pvt. Ltd.

Kathmandu, Nepal

June 2024 – August 2024

- Worked on embedded system development, integrating hardware and software solutions.
- Gained hands-on experience with microcontrollers, sensors, and communication protocols.
- Developed and tested firmware for embedded applications.
- Collaborated with a team to troubleshoot and optimize system performance.

Publications

Low-Cost IoT-Enabled Tele-ECG Monitoring for Resource-Constrained Settings:

System Design and Prototype

[Source Code](#)

[Link to Paper](#)

- Designed an end-to-end IoT framework using ESP32 and AD8232 sensors to capture and transmit real-time ECG data via MQTT protocols for remote cardiac health tracking.
- Implemented digital signal processing algorithms to filter power-line interference and baseline wander, ensuring high-fidelity data transmission in resource-constrained environments.

Projects

Automatic Bus Fare Deduction System

[Link to project](#)

- Developed an automated bus fare deduction system using RFID, Arduino, and GPS, utilizing I2C communication.
- Integrated a GPS module to track distance traveled and determine the fare accordingly.
- Implemented RFID-based passenger identification and GPS tracking to calculate dynamic fares between bus stops.
- Designed and implemented a Django-based backend to manage user data, fare transactions, and route tracking.
- Built a mobile application using Flutter to allow passengers to view buses and fare details in real time.

Airlines Management System

[Link to project](#)

- Developed a database-driven application to manage airline operations including flights, bookings, passengers, and schedules.
- Designed normalized relational schemas using SQL with proper use of primary and foreign keys to maintain data integrity.
- Utilized PHP's Tinker to test and interact with backend models and relationships during development.
- Optimized SQL queries for efficiency and scalability.

Technical Skills

Languages: Python, C/C++, SQL, HTML, CSS, Java

Developer Tools: Git/GitHub, Postman, Genex Probe, Genex Assistant, Google Earth Pro, VS Code, MATLAB, KiCad, Proteus, Flash Tool, OTA Test Tool

Participation

Shequal Hackathon 2024

Nepal's Largest All-Female Hackathon

Selected and participated with teammates, developing an IoT system integrated with a mobile application and cloud backend. The event was a three-day closed camp, and our team secured 6th place out of 20 teams from across Nepal.