



NISCHAL GAUTAM

EXPERIENCE

03

2025 - Ongoing

Smart JumpRope

Designing a smart rope that tracks your workouts. Workout information can then be seen locally on the rope handle or in the internet.

In this project I am handling the backend of the device, meaning the communication, measuring and saving the data and all the backend code. I am helping the team with the internal device design.

06.2025 / 07.2025

RoboGarage, Metropolia

Soldering and making tiny robot cars that can be moved via a M.L. algorithm or manually depending on the needs of the players.

This project taught me M.L., soldering, making a tiny robot that can be moved via PS4 controller or act autonomously.

09.2025 / 10.2025

Green House Controller

A FreeRTOS-based embedded system written in C++ for monitoring temperature, humidity, and CO₂ levels. The system communicates with sensors via Modbus and can send and receive data from a cloud service. Network parameters are configurable locally and stored in EEPROM.

In this project I learned a lot about RTOS-systems. Cloud communication and also local user design for network settings and a lot about OOP.
08.2025 / 9.2024

Health Assistant

In this hackathon I placed second by designing a small calorie tracker and a smart fridge system that can track your items via barcode and suggest you recipes and track calories via text input.

SKILLS

04

EMBEDDED
DEVICES

PYTHON

C & C++

JAVASCRIPT

IoT SYSTEMS

DEPLOYMENT

ROBOT
FRAMEWORK

TEST
AUTOMATION

SOLDERING

QML

LANGUAGES

05

English

Native

Finnish

Native

Nepali

Native

Hindi

Basic
Communication

OTHER SKILLS

07

Experience with QT systems via the QT basics and QT intermediate course. 07.2025

Deployment and international collaboration in international sensor development course. Ongoing

Data statics & analytics, Data structure and algorithms with Python. 07.2024

Intro to Machine Learning via an intensive course in Metropolia. 08.2025

CONTACTS

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[GITHUB.COM/NISCHAL1313](https://github.com/Nischal1313)

[WEBSITE](#)

[G.NISCHAL@PROTONMAIL.COM](mailto:g.nischal@protonmail.com)

HELSINKI / VANTAA

+358 44 333 2842

EDUCATION

02

2023 Autumn - Ongoing

METROPOLIA UAS

Smart IoT Systems: Embedded IoT Devices

