# **MILIND**

## **Software Developer**

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## **ABOUT**

Passionate about crafting scalable and efficient software solutions by leveraging modern development methodologies.

## **EDUCATION**

Artificial Intelligence for Smart Sensors and Actuators (Master of Engineering)

**Deggendorf Institute of Technology** 

**1** 03.2022 - 03.2025

**♀** 93413 Cham

Mechanical Engineering (Bachelor of Technology)

**Vellore Institute of Technology** 

**1** 07.2016 - 06.2020

♥ Vellore, Tamil Nadu, India

## **EXPERIENCE**

## **Qt Application Developer**

#### **Persystems**

**1** 01.10.2024 - 28.02.2025

- Developing Virtual Testbench, a Simulation Windows Application for industrial and automotive electric components, using C++ and the Qt Framework. Virtual TestBench is a lightweight alternative to MATLAB / Simulink
- Implemented Licence check service in the Virtual Testbench.

### **Qt Application Working Student**

#### **Persystems**

**1** 01.07.2024 - 01.10.2024

- ₱ Franz-Mayer-Straße 1, 93053 Regensburg
- Created a visual nodes system where users can drag, drop, and connect various simulation electronic components with their interfaces to run the simulation using the Qt Nodes library.
- Utilizing Qt Creator as the Integrated Development Environment (IDE) for development.
- Iteratively optimising the UI and UX for better User Flow using MVC architecture.

#### Master Thesis in ADAS Virtual Validation

#### **AVL Software and Functions GmbH**

**1** 01.11.2023 - 01.05.2024

 Engineered a co-simulation platform for AV ADAS verification and enhanced AVL's FMU Generation Utility to FMI 3.0 with C++ for integration with Carla and esmini, adhering to ASAM standards.

#### **Working Student**

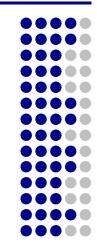
## **AVL Software and Functions GmbH**

**15.02.2023 - 31.10.2023** 

- **♀** Im Gewerbepark B29 93059 Regensburg
- Worked in ADAS Digitalization, focusing on engineering environments, including demonstrating SOA (Service-Oriented Architecture) with Adaptive AUTOSAR for automotives.
- Analyzed middleware technologies like ROS 2 and Adaptive AUTOSAR, and developed C++ applications and tools for Adaptive Application deployment using Azure DevOps.
- Optimized RT Linux OS via Yocto for real-time automotive systems, ensuring efficiency across ECUs.

## **SKILLS**

C / C++
Qt Framework / QML
UART / I2C / SPI
JTAG Debugging
TCP/UDP/MQTT/OPC-UA
Python
Linux / Unix
RTOS
SQL
CI / CD
LIN / CAN
AUTOSAR
Git



# **PROJECT**

**Yocto Project** 



# Health monitoring IoT device 10.2024



Developed a health monitoring IoT wearable prototype using the STM32 microcontroller, interfacing sensors (body temperature, blood oxygen, heart rate, humidity, temperature, movement) via I2C and SPI protocols. Integrated UART for communication between STM32 and an ESP WiFi module for wireless data transfer to a local server hosting a web GUI. Firmware was developed in STM32CubeIDE, managing sensor data, protocols, GPIO for LEDs, and an emergency button. The GUI displayed real-time and historical data, accessible via browser. Optimized for 5-hour battery life using STM32 low-power modes.

## **HOBBIES**

Video Games

Cycling

Classic and Hard Rock

# **LANGUAGES**

English German Hindi

