

**JAY KARANDKAR**

**Software Developer**

Pune, India

+91 7030797618

[jk.karandkar@gmail.com](mailto:jk.karandkar@gmail.com)

## SUMMARY:

Software development hands-on experience in designing and developing application using C++ and the Qt framework. Proficient in object-oriented programming, multi-threading, and GUI application development. Looking to expand skills and take on new challenges in a growing development environment.

## SKILLS & EXPERTISE:

- ✓ Programming Languages: **C-C++, Embedded C**
- ✓ Frameworks & Technologies: **Operating System - Linux, Windows, Qt Creator**
- ✓ Communication Protocols: **UART, SPI, I2C, CAN**
- ✓ Microcontrollers: **ESP32, LPC2138/48, PIC17F877a, 8051**
- ✓ Database Management: **MS SQL Server**

## EXPERIENCE:

### Delta IoT Solutions, Pune

Graduate Trainee Engineer | March, 2024 – Present

- Received specialized training in C-C++ programming and Qt framework, gaining hands-on experience in developing software applications and building user interfaces.
- Continuously updated technical knowledge and skills by learning from industry best practices and attending internal training sessions.

### Weather Station

**Technologies:** Embedded C, Communication Protocol - I2C, SPI, UART, ADC, ESP32, Raspberry Pi.

**Tools:** Arduino IDE, KiCAD, Git.

**Description:** Designed and implemented a real-time weather monitoring system integrating multiple environmental sensors like BME680, Wind Sensor, Wind Vane, Rain Gauge to collect, process, and display weather data such as temperature, humidity, air pressure, gas levels, wind speed/direction, and rainfall.

#### Roles and Responsibilities:

- Implemented sensor interfacing and data acquisition for the **BME680** using **ESP32** via the I2C protocol.
- Configured BME680 to retrieve temperature, humidity, pressure, and gas resistance values.
- Developed a modular C codebase to initialize the sensor, calibrate readings, and output real-time data.
- Used UART for serial debugging and data visualization on a terminal.
- Collaborated with the team to send the BME680 data to the Raspberry Pi via Wi-Fi or serial communication.

### Vehicle Dashboard

**Technologies:** C-C++, Qt Framework, Qt Widgets, SQLite

**Description:** Developed a sophisticated vehicle dashboard system using the Qt framework. The system provided real-time visualization of vehicle data including indicators, speedometer, battery level, and other diagnostics.

**Roles and Responsibilities:**

- Assisted in the development of application using Qt, improving familiarity with both GUI design and backend development.
- Implemented real-time data visualization for speed, battery level, and other vehicle parameters.
- Optimized performance and responsiveness of the dashboard for smooth operation.
- Worked on custom graphics and animations using Qt Widgets/QML to enhance the UI.

**Success9 Tech Solutions, Pune**

Embedded Intern | Jan, 2023 – June, 2023

**Industrial Automation**

**Technologies:** Embedded C, Embedded System, Communication Protocol – SPI.

**Description:** This project implements an industrial automation system using two microcontrollers, LPC2148 (ARM7) and PIC16F877A, communicating via the SPI protocol. The system aims to automate temperature monitoring, light intensity detection, and control of industrial equipment such as fans, lights, and buzzers based on environmental conditions.

**Roles and Responsibilities:**

- Design and developed “32-bit micro controller based embedded system designed and development”.
- Support to design and debug software for I2C drivers, testing complete project.
- Created drivers for motors, LCD, SPI.
- White box and Black box testing.

**EDUCATION:**

**B-Tech in Electronics and Telecommunication Engineering (2023) – VIIT, Pune.**

**CGPA – 7.76**

**HSC (2019) – Pvg’s Maharashtra Vidyalaya Jr. College, Pune.**

**Result – 62.31%**

**SSC (2017) – S.D. Katariya High School, Pune.**

**Result – 79.60%**

**DECLARATION:**

I hereby declare that all the information provided is true and complete to the best of my knowledge and belief.

Date:

**JAY KARANDKAR**