

Embedded Systems Design Internship

Become JOB Ready



Online and Offline Mode

Embedded Systems Challenge!

A 4-week hands-on internship designed to make you skilled in embedded systems using the STM32 microcontroller. Learn by doing, from GPIO and timers to communication protocols and build a real project that You can proudly showcase.

cards();});
in('resize', function()
cards(){
 width = \$(window).width()
 width < 750){
 f(width < 750){
 cardssmallscreen();
 cardsbigscreen();
 }
}else{
 cardsbigscreen();
}

function cards = 0;
 var cards = 0;
 var height = 2;
 var cards = 0;
 var ca

What You'll Achieve in Internship

- Embedded C Programming
- STM32 Microcontroller
- GPIO, Timer, ADC, PWM
- UART, I2C, SPI, CAN
- Tools like QUEM, Proteus
- Building Real Projects
- Register level to HAL API



1 st Week

Embedded System Fundamentals

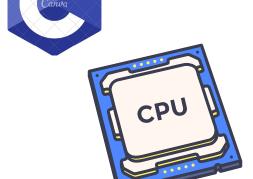
- Introduction to Embedded Systems
- ARM Cortex-M4 core basics.
- ✓ ISA CISC vs RISC
- ARM Cortex-A, R, M
- STM32F4 Architecture
- STM32F4-Discovery Board
- STM32Cube IDE setup
- QEUM Emulator
- Special Function Registers
- Programmer Model
- Memory Model







- **✓** GPIO
- Register-level programming
- LED blinking
- 🔽 BIT Testing, Setting, Clearing
- ✓ Bit Right and Left Shifting
- ✓ STM32Cube Package
- ✓ Hardware Abstraction Layer
- Mock Interview for Embedded Software Engineer Roles
- Embedded C and Python Coding Challenges & Debugging Exercises

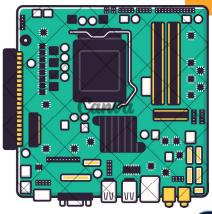




3 rd Week

Mastering Microcontrollers

- **✓** Timer
- **V** PWM
- ✓ Interrupts & ISR
- ADC and DAC
- 7 Segment Display
- 16x2 LCD interfacing
- Motor interfacing
- Potentiometer and
- Analog Sensor







4th Week

Communication Protocols

- **UART**
- **12C**
- **V** SPI
- **V** CAN
- WiFi (802.11)
- **✓** BLE
- Hands-on Labs & Real Time Projects
- Exclusive PDFs & Cheat Sheets
- Access to STM32Cube Projects & Source Codes







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