



# NGUYEN TIEN DUY

## Embedded Software Developer

 09/10/2002  tienduyhd2k2@gmail.com  Mo Lao, Ha Dong, Ha Noi  0347399213  TieOnly

### ABOUT ME

Being commented by teammates for my ability to plan and successfully complete multiple task, as well as being responsible and creative. I want to be an Embedded Software Engineer and have deeply understand about this field.

### EDUCATION & ACHIEVEMENT

2020 - 2024

**PTIT(Post and  
Telecommunication  
Institute of Technology)**

#### Electrical and Electronics Engineering

GPA: 3.05 / 4

Encourage academic scholarships (4 terms)

TOEIC: 680 (IIG certification)

### SKILLS

#### C

- Bare-metal and RTOS embedded C development
- Familiar with structure, pointer, macro C
- Application programming includes network, multithread, GUI and control hardware

#### C++

- Modularity embedded system C++ for MCUs
- Application programming includes community protocols, multithread, graphics, network
- Familiar with OOP, programming techniques, design patterns basic

#### Embedded

- Familiar with MCU families such as ATMEGA, 8051, ARM-M, Esp
- Familiar with many types of sensors, OLED and LCD display module
- Experience with peripherals UART, SPI, ADC,...wireless community such as IR, WiFi
- Design and building hardware basic

#### Python

- Application includes community protocols, network, multithread, image process
- Experience with ML model, tensorflow on embedded systems

## Verilog

- Design and simulate high performance embedded systems
- Optimize and deploy system on FPGA Kit

## Others

- Embedded Linux
- Makefile, GXX compiler, VScode, Git
- Altium Designer, Proteus, Modelsim, Quartus
- Web structure

## PROJECTS

### C TCP module (#1)

11/2023 - 12/2023

Module TCP server for streaming simple video on Esp8266 and Desktop

### Remote control PC using 8051 (#3)

5/2022 - 6/2022

Coding firmware for 8051 to control PC via IR wave

### STM32F1 community with PC (#5)

5/2022 - 6/2022

Community and control PC with SMT32F1 depend on UART protocol, developing using C++ and CMake

### Simple RPG graphic game (#6)

2022 - 2023

Using C++, raylibC and OOP techniques for developing RPG graphic game

### Simple multiplayer game (#8)

8/2023 - 10/2023

Using Python and socket, process multi-threads and network connections for PCs in a local

### HMACSHA256 on FPGA (#10)

4/2024 - 5/2024

Encoding user data depend on HMAC algorithm using SHA256 encoding. Optimize verilog code and minimize storage for deploying on FPAG Kit

### Kernel module TFT for Raspberry Pi (#11)

5/2024 - 6/2024

Developing driver TFT for Linux OS, control display and run graphics application on Pi 3 base on Ubuntu Server.

### Smart Clock with STM32F1 and TFT (#12)

2/2024 - 4/2024

Manage multi application such as clock, weather, game, settings. Transfer information via module WiFi and interact with user by Joystick.

### Reference

2022 - 2024

[https://github.com/TieOnly/cv\\_projects\\_reference.git](https://github.com/TieOnly/cv_projects_reference.git)