NGUYEN TIEN DUY

Embedded Software Developer

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ABOUT ME

Being commented by teamates for my ability to plan and successfully complete multiple task, as well as being responsible and creative. Love to optimize yourself and explore.

EDUCATION

2020 - 2024

PTIT(Post and Telecommunication Institute of Technology)

Electrical and Electronics Engineering

GPA: 2.93 / 4 (best term: 3.72)
Encourage academic scholarships (3 terms)

LANGUAGES

C

C++

Python

Verilog

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

- RTOS, Embedded Linux
- Makefile, GXX compiler, VScode, Github
- Altium Designer, Proteus, Modelsim, Quartus

PROJECTS

C TCP module (#1) 2022 - 2023

Module TCP server for streaming simple video on Esp8266 and Desktop

Remote control PC using 8051 (#3) 2022 - 2022

Control PC using 8051 and IR wave

STM32F1 community with PC (#5) 2022 - 2022

Community and control PC with SMT32F1 depend on UART protocol

Simple RPG graphic game (#6) 2022 - 2023

Using C++ and RaylibC for developing RPG graphic game

ChatApp (#7) 2022 - 2023

Using C++ and Asio lib for TCP network, every pc in a local network can community and play simple game together

Simple multiplayer game (#8) 2023 - 2023

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

C Server (#9) 2024 - 2024

Developing TCP server for processing multi-threads, network community and transmit data to each client. Deploy on Linux OS

HMACSHA256 on FPGA (#10) 2024 - 2024

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

Reference 2022 - 2024

All descriptions and source code of my projects in this link: *https://github.com/TieOnly/cv_projects_reference.git*