Ha Viet Hung

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PROFESSIONAL SUMMARY

- Have 02 years of experience in Embedded software development and testing.
- Have experience in AUTOSAR: Vehicle communication development such as CAN, LIN, FlexRay protocols.
- Have experience in microcontroller firmware development, data handling and processing, communication protocols.
- Good at English, have ability to research documents, communicate with customers.

TECHNICAL EXPERTISE

Program languages	C, Python
Microcontrollers	ARM cortex M0, M4 (STM32, KL46), Arduino platform (ATMEGA)
Peripherals and protocols	SPI, I2C, UART, PWM, TIMER, ADC, CAN, LIN, FlexRay
Compilers	GCC
Source Control Tools	GIT
Task/Bug Management Tools	Jira
Customer	Vietnam, EU, India

PROFESSIONAL EXPERIENCE

Bosch Global Software Technologies Vietnam **09/2022 - Now**

Embedded Software Engineer

- *Project Electronic Vehicle Control Unit – eVCU*
  - Analyze project's requirements related to CAN, LIN, FlexRay protocols in Autosar.
  - Implement common function, data handling in CAN, LIN interface layer.
  - Design and execute Unit test as well as Integration test for eVCU's operation and communication.
  - Tool support: CANanalyzer, CANoe, ECUtest, INCA.
- *Adaptation system between eVCU, computer and microcontroller board (STM32)*
  - Design and develop device for specific project's demand: flash, debug, simulate, monitor eVCU's software behavior.
  - Use CAN, CANFD, LIN controller and transceiver communicate with STM32F4xx via UART, SPI, I2C protocols.
- *Develop devices for Laboratory*
  - Monitor and simulate data transmision in LIN bus, CAN bus.
  - Simulate signal behavior on physical bus: bus switching, bus corrupting, bus shorting (bus-off).
  - Monitor and remote power consumption of Lab's devices, include Voltage and Current.
- *Tool translate pseudocode to C programing language*
  - Lexer and parser pseudocode given by customer, then compile to C programing language.
  - App interface develop by Window Form, using C#.
  - Prototype in Github: *https://github.com/hung-hv/compiler_demo.git*

- *Achievements:*
  - Contribute scripts by Python and C to speed up coding (about 10%) and configurating (about 30%) in daily task, some are in using.
  - Contribute to Lab operation, 1 developed device is in using for more than 1 year.
  - Top 10 in Bosch hackathon 2023 contest.

FPT Software **05/2022 - 09/2022**

Fresher software engineer

- ***FAT file system reader for FAT12, FAT16, FAT32***
  - Develop FAT file system reader, can parse and display FAT12, FAT16, FAT32, includes long file name.
- ***Develop firmware for KL46 (base on ARM Cortex M0)***
  - Write driver to control GIPO.
  - Develop driver for GPIO. Configuration GPIO for interrupt, PWM and UART protocol.
  - Receive and parse image from PC via UART. Using UART for interrupt, control peripheral signals.
  - Control the timer to handle the voltage level at the GPIO pins.
  - Using JTAG for debugging.

Automated Engineering solution Vietnam joint stock co **06/2019 - 10/2019**

Intern

- *Technical support for R&D*
  - Design and implement air conditioning control system via internet using .net and Arduino platform.
  - Develop firmware for STM32 microcontroller: implement function, interrupt, protocols.
  - Implement supervise system for electronic component in STM factory (Vinsmart).

PERSONAL PROJECT

Third prize: Canon Chie-Tech by Canon Inc Vietnam **2019 - 2020**

Team leader, Firmware developer, Hardware designer (PCB)

- Automatically assemble and classify pen arccording color from 4 batches of pen's component.
- Using STM32F4 control stepper motor and communicate with sensors via I2C, UART protocol.

ABU Asia-Pacific Robot Contest – ABU Robocon **2017 to 2019**

Firmware developer, Hardware designer (PCB)

- Design and develop robots based on ABU Robocon contest's requirement.
- Develop communication between microcontrollers (STM32F4 and STM32F1) and sensors, actuator drivers. Using UART, SPI, I2C, ADC.

First prize: Oxfam Datalab Hackathon VIETNAM 2017 by Microsoft and Oxfam **2017**

Team leader, Firmware developer

- Detect water level in simulation street, indicator when overflow. Data handle and display on Android application.

EDUCATION

Hanoi University of Science and Technology **2017 - 2022**

Bachelor of Engineer – Major: Electrical Engineering