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| **PHAM TRONG HUYNH** Embedded Software Engineer | Ho Chi Minh City, Vietnam  Phone (+84)948876392  Email: [tronguynhgtw@gmail.com](mailto:tronguynhgtw@gmail.com)  Linkedin: <huynh-pham-gtw> |

OBJECTIVE

I am a Computer Engineering graduate passionate about developing automation products and deepening my expertise in Embedded Software. I aim to contribute innovative ideas and expand my personal project portfolio through continuous learning and hands-on experience. I look forward to growing together and collaborating effectively with the team throughout this journey.

SKILLS

* Programming languages: C, C++, Assembly, Python, Bash shell
* Platforms: Embedded Linux, RTOS
* Tools: STM32CubeIDE, STM32CubeMX, Git, JIRA, Jenkins, VScode, Vim,
* Protocols: UART, SPI, I2C, CAN, LoRaWAN
* Hardware: STM32, ESP8266, 8051 Microcontrollers, MPU6050, LoRa
* Fields of Interest: Embedded system, Embedded Linux, IoT Systems, AUTOSAR
* Reading - understanding English materials and basic communication
* Perform logic analysis for debugging and testing
* Work independently, and research solutions to issues during project execution.

EXPERIENCE

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| UAV in rescue *(Thesis)* | *Feb 2022 – Aug 2023* |

* Transport rescue equipment bags by UAV to the area in need of rescue
* Implement STM32F1 microcontroller with PWM, timers, interrupts, I2C, UART, and SPI
* Integrate MPU6050 IMU to balance the UAV using accelerometer and gyroscope data
* Use the Mahony Filter to reduce noise in sensor data for better accuracy
* Develop a PID controller to manage and stabilize UAV flight dynamics
* Create a web server for remote debugging and quick control of the UAV
* Resolve energy issues for debugging and actual flight operations.

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| Software Engineer at DEK Technology | *March 2023 – Jun 2024* |

* Participated in the development project for creating a Session Border Controller (SBC) within the IMS
* Analyzed and proposed solutions for new customer requirements
* Monitored testing results on the Continuous Integration (CI) system to maintain feature quality
* Assisted customers in resolving product-related issues
* Work in an Agile-Scrum environment and report tasks effectively on Jira.

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| Internship at Realtime Robotics Vietnam | *Jul 2022 – Nov 2022* |

* Write a bash script to run Linux commands, collect UAV specifications
* Develop and run functional and performance tests for the video streaming system, then report the results to assess its performance
* Simulate flight conditions and evaluate the video stream quality of the system
* Upgrade database editing software.

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| Smart Clock Project | *Oct 2021 – Dec 2021* |

* Use to manage time, alarms, temperature notifications
* ESP8266 nodeMCU communicates with LED matrix, sensors through Google Assistant.

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| Catch The Light Project | *Apr 2021 – Jul 2021* |

* The product is a game, the LED on the board runs at a fast speed and the player's task will be to catch the predefined LED position, after each time the LED is caught, the level of play will be more difficult. After reaching the highest limit will get a beautiful LED effect.
* Using 8051 microcontrollers to control 50 RGB LEDs, utilizing interrupts and button de-noising.

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| Remote control car | *Feb 2022 – Feb 2022* |

* This personal project was developed during the COVID-19 pandemic
* Using MIT App Inventor to control the device with NodeMCU ESP8266
* Using the Camo application for video streaming and remote control of a car around my house.

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| Smart Trash Can | *2017* |

* Smart Trash is a project using the Arduino microcontroller.
* When the infrared sensor detects someone approaching, the microcontroller controls the motor to open the trash can lid. This contest, organized by Tra Vinh and Ben Tre universities, aims to foster students' research spirit
* The product won the second prize 2nd in the contest.

EDUCATION

* Bachelor of Computer Engineering (GPA 8.26/10) at the University of Information Technology
* Automotive Basics: completed the BGSV Embedded Academy (BEA) program, a joint effort between Bosch Global Software Technology Company and the UITs Department of Computer Engineering

INTEREST

Playing football, badminton, running and hiking.