## Ta Luc Gia Hoang

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### INTRODUCTION

I consider myself have strong passion in embedded system and image processing.

I would love to work for an organization applying image processing to data collection and surveillance camera or involving precision agriculture field thus I could contribute my enthusiasm, satisfy customer demands and effort to innovate the company where I work.

I want to work somewhere where I will have opportunities to develop my skills, take on interesting projects, and work with people I can really learn from.

## **EDUCATION**

2012 – 2017 BACH KHOA UNIVERSITY CITY (BKU) -

VIETNAM NATIONAL UNIVERSITY – HO CHI MINH CITY

Faculty of Electrical & Electronics Engineering Major Electronics – Telecommunication

GPA: 7.21

4/2016 **IIG VIETNAM** 

TOEIC Certificate – Total score: 695

## TECHNICAL SKILLS

- Strong in Embedded C/C++ coding
- Good Knowledge & Work Experience in Image Processing
- Familiar with OpenCV: Image Transformations, Background Subtraction, Object Detection, Tracking, Machine Learning
- Minicomputer: Raspberry Pi, BeagleBone Black
- MCU: Tiva C Series TM4C123G, MSP430G2553, Arduino UNO R3, 8051, PIC16F87A
- OS: Ubuntu/Linux, Debian/Linux, Windows
- Embedded software building, debugging, testing
- Be able to read Hardware Manual
- Good Knowledge in common communication protocols: UART, SPI, I2C, TCP, UDP
- Basic Knowledge in using APIs: V4L2, FreeRTOS, Basler Pylon
- Simulation software: Proteus, MATLAB, CST Studio
- Socket Programming
- Basic in Assembly, Java, Python

## ACADEMIC PROJECTS

- **2048 Game**: console application program in C++
- Horn Antenna: design and simulate using CST Studio
- **Digital Clock**: using LCD16x2 and 8051 program in Assembly
- Simple Hi-Fi Audio Amplifier: design and implement circuit
- Mini Calculator: using LCD16x2, 4x4 Keypad and Tiva C Series TM4C123G
- Simple Digital Multi Meter: Design and develop simple measurement device using PIC16F87A
- Streaming video: studying a minicomputer BeageBone Black and create a sample application for it
- **People Counting Camera**: Develop an application using OpenCV for processing and counting people
- **IP Camera**: using a Raspberry Pi grabs images from a webcam and transmit to a PC, both of them connected to a LAN
- Wireless sensor networks in agriculture (Graduation Thesis): Collect data (humidity, temperature, light intensity) and send to center node by RF; design and develop both hardware and software using Raspberry Pi, MSP430 MCU, RF modules and sensors

#### **EXPERIENCE**

## **Internship** Vigilant Video

June 13, 2016 – August 19, 2016

- Investigate and set up working environment for Raspberry Pi
- Investigate how to use Basler Camera
- Self-study some basic video streaming concept: color space, image compression, Socket programming, TCP/UDP, V4L2 API
- Develop an IP Camera using Raspberry and Basler Camera to grab and stream video to connected PC

# **Embedded Software Engineer**

**March 1, 2017 – Present** 

- Renesas Design Vietnam Co., Ltd. Building customized Linux Image with Yocto
- Testing image processing chip, video performance
- Creating demo for Image Processing API (similar to OpenCV API): People detection
- Testing, Debugging, Porting
- Developing Use Case Test as Customer Requirement
- Mainly working on INTEGRITY RTOS and Linux
- Linux kernel driver
- Creating automation test script using CANTATA software
- Reporting issue, creating notes and guidelines clearly for teammate

## **SOCIAL ACTIVITIES**

8/2014 - 1/2018 Volunteer Teacher at Giac Quang Pagoda

- Teaching children who are poor or live in slums, basic Mathematics and

Literatures, communication skills and make them self-confident.

7/2015 Green Summer Volunteer Campaign 2015

13/1/2014 *Blood Donation* 

6/2013 National University Entrance Exam Support Campaign 2013

## PERSONAL PROFILE

**Skills:** Able to read English documents

Strong analysis skill and ability to work independently

Capacity for managing time and working under high pressure and take

responsibilities

Smart-worker and good attitude.

Presentation Teamwork

**Hobbies:** Reading, watching, biking, travelling, playing guitar and games