

# Tran Quoc Trung

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## EDUCATION

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Sep 2009 - May 2014 **University of Information Technology, Ho Chi Minh City**  
Engineering Degree in Computer Engineering Faculty  
Gpa: 7.37/10

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## WORK EXPERIENCE

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June 2016 - Present **Seldat Inc**  
Embedded Software Developer  
Main responsibilities:  
- Developer for project "*RFID UHF reader for warehouse system.*"  
- Developer for project "*Mannequin Robot for fashion design.*"  
- Write *GUI application for "Mannequin Robot."*

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Mar 2014 - June 2016 **ICDREC Center of Viet Nam National University**  
Embedded Software Developer  
Main responsibilities:  
- Design specification and write firmware for project: "*Access Controller for small and medium office.*"  
- Design schematic and write firmware for project: "*XM200 sub-board supported to XM200 Black Box Car.*"  
- Design schematic and write firmware for project: "*Electric reader using for reading electric meter value from long distance.*"  
- Design schematic and write firmware for project: "*Stand Alone Access Control project.*"  
- Test and apply RFID chip that made by ICDREC used for *Name Display* project.  
- Test bugs and write peripheral library for SG8V1 MCU compiler made by ICDREC.

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Mar 2013 - Mar 2014 **Intern in ICDREC Center of Viet Nam National University**  
Trainee  
- Project: "*TTS - Vietnamese Text To Speech*"  
- Designed and write software in the project: "*Applying RFID technology into Name Display device used for conference room.*"

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## PROJECTS

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### RFID Tower

(Feb 2018 - May 2018)

<b>Customer</b>	Seldat Warehouse Department
<b>Description</b>	- Design an RFID Tower that collected all RFID tags item on 6 floors rack.
<b>Team size</b>	5
<b>My position</b>	Developer.
<b>My responsibilities</b>	<ul style="list-style-type: none"> <li>- Research about virtual antenna for using multiplex technology that can extend to 12 antennas in one reader.</li> <li>- Modified new firmware base on gateway reader.</li> <li>- Support WMS team to control the reader.</li> <li>- Bug Fixing.</li> </ul>
<b>Technologies used</b>	<ul style="list-style-type: none"> <li>- Linux embedded environment.</li> <li>- Write firmware with C/C++ OOP languages.</li> <li>- RFID technology.</li> </ul>

### Mannequin Robot

(Apr 2017 - Jul 2017)

<b>Customer</b>	Seldat Fashion Department
<b>Description</b>	- This robot can changes body size that input by the tailor. Robot helps tailor could check and verify clothing of a customer.
<b>Team size</b>	6
<b>My position</b>	Developer.
<b>My responsibilities</b>	<ul style="list-style-type: none"> <li>- Write specification and software architecture.</li> <li>- Define protocol communication between the robot and GUI software.</li> <li>- Developed software on the controller board.</li> <li>- Optimize code.</li> <li>- Bug Fixing.</li> <li>- Support write GUI control.</li> </ul>
<b>Technologies used</b>	<ul style="list-style-type: none"> <li>- Linux embedded environment.</li> <li>- Write firmware with C/C++ OOP languages.</li> <li>- Write service controller board with ShellScript.</li> <li>- Write GUI control with Java language.</li> </ul>

### RFID UHF Reader For Warehouse System

(2016 - 2017)

<b>Customer</b>	Seldat Warehouses System
<b>Description</b>	<ul style="list-style-type: none"> <li>- This is the reader using RFID UHF technology for reading tags in cartons to help decrease time and human resources in warehouse system.</li> <li>- The reader could use for many application like: <ul style="list-style-type: none"> <li>• Conveyor reader.</li> <li>• Gateway reader.</li> <li>• Forklift reader.</li> </ul> </li> </ul>
<b>Team size</b>	6
<b>My position</b>	Main Developer
<b>My responsibilities</b>	<ul style="list-style-type: none"> <li>- Support write specification and design software architecture.</li> <li>- Define protocol communication between Host and Reader.</li> <li>- Developed embedded software.</li> <li>- Build linux distro for reader board from Debian distro.</li> <li>- Write service run-time controller for reader.</li> </ul>

	<ul style="list-style-type: none"> <li>- Optimize code</li> <li>- Bug fixing</li> <li>- Support Warehouse Manager on operates tests in the US.</li> </ul>
<b>Technologies used</b>	<ul style="list-style-type: none"> <li>- Linux embedded environment.</li> <li>- C/C++ OOP languages.</li> <li>- ShellScript.</li> <li>- RFID, Wifi, Zigbee, Ethernet.</li> </ul>

## Access Controller

(2015 - 2016)

<b>Customer</b>	ICDREC
<b>Description</b>	<ul style="list-style-type: none"> <li>- Access Controller could control staff access for small and medium business by RFID technology.</li> <li>- Each controller could control up to 4 rooms and many controllers are works unique under server software.</li> </ul>
<b>Team size</b>	4
<b>My position</b>	Developer
<b>My responsibilities</b>	<ul style="list-style-type: none"> <li>- Write specification and define protocol communication.</li> <li>- Development firmware.</li> <li>- Review code.</li> <li>- Optimize code</li> <li>- Bug Fixing.</li> <li>- Training for customer.</li> </ul>
<b>Technologies used</b>	<ul style="list-style-type: none"> <li>- MCU 8-bit.</li> <li>- C language.</li> <li>- Microsoft Visual Studio C# for testing software.</li> <li>- RFID HF.</li> <li>- Ethernet for embedded system.</li> </ul>

## HHU Reader

(Jan - 2015)

<b>Customer</b>	EVN Ho Chi Minh City
<b>Description</b>	<ul style="list-style-type: none"> <li>- This device could read electric meter without near by the meter from 100 meters.</li> </ul>
<b>Team size</b>	3
<b>My position</b>	Developer and Tester
<b>My responsibilities</b>	<ul style="list-style-type: none"> <li>- Analysis and design software architecture.</li> <li>- Development firmware.</li> <li>- Optimize code.</li> <li>- Bug Fixing.</li> <li>- Training customer.</li> </ul>
<b>Technologies used</b>	<ul style="list-style-type: none"> <li>- MCU 8-bit.</li> <li>- RF wireless transceiver.</li> <li>- Android 4.0.</li> <li>- C language.</li> </ul>

## SKILLS

**Programing Languages** C/C++, C#, Java, Python, Shell Script.

**Language** English: Intermediate.  
Japanese: Basic.

**Data Analysis** Microsoft Excel, Word, Visio, Project, Dia.

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## Technologies

Be familiar with: RFID HF - UHF in Warehouse, Zigbee, Bluetooth, RF Wireless, Wifi, TCP/IP, Ethernet for Embedded System.

Be familiar with 8/16 bit microprocessor: SG8V1, PIC: 24F, 16F, Arduino development board...

Experience in working with communication hardware such as: ADC, UART, SPI, I2C.

Experience in developing under Linux environment:

- Experience with Cross Toolchain, BootLoaders, Linux kernel, Filesystem on embedded board.
- Experience with board level development and debug: network-programing, Linux system call, POSIX, pthread, GDB tool.
- Knowing with Buildroot and Yocto.

Be familiar with version control software like: Github, Bitbucket.

Has knowledge to check and review schematic hardware.

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## Soft Skill

- Read and work with English document.
- Have a responsibility in job.
- Good team player.
- Problem solving skill.
- Acquisition of new things.
- Solving problems with flexible work hours
- Good communication skills
- Time management and working scientifically
- Be able to work under high pressure.

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## HONORS & AWARDS

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Jan 2017	Best Employee of the Month.
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## ACTIVITIES

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Jan 2014 - Feb 2014	<b>Volunteer of Green summer campaign.</b> Take part in Teaching computing for students in disadvantaged areas campaign. Exam Season Support for national examination. Attend extracurricular activities held in university such as: take care of children with disabilities, cleaning a cemetery, etc.
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