

# Guoze(Terry) Tang

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## EDUCATION

**Clemson University** - *Master of Computer Science*

*Clemson, SC* **May. 2018 - Present**

**University of Science and Technology of China** - *Master of Software Engineering; Rank:1/47*

*China* **Mar. 2017**

**Yunnan University** - *Bachelor of Electronic and Information Engineering*

*China* **Jul. 2014**

## PROGRAMMING SKILLS

- **Programming Language:** C, C++, Java, Python, Shell Scripting, Flex, Bison, Binpac, Assembly, MySQL, JSON, Matlab
- **Working Environment/Tools:** Linux, Embedded Linux, ucos, VxWork, ARM STM32, ARM9, GCC, Makefile, Git, gdb, MVC Design Pattern, ARM, Click, Bro, Office, VS Code, Keil, Vim

## EXPERIENCE

**The School of Computing at Clemson University**

**May. 2018 - Present**

*Research Assistant*

*Clemson, CA*

- **Research Assistant - Network Security:** Research on Virtualization of Network Intrusion Detection Systems for network protocol parser. Implemented the Network Protocol parses for DNS, HTTP protocols by Binpac language, Bro system, and Click system.

**DJI Technology**

**Apr. 2016 - Nov. 2016**

*Embedded Software Development Intern*

*Shenzhen, China*

- **Sensor Driven Development:** Developed Sensor-driven of FJ project in DJI and analyzed the data of Sensor. Realized Serial port, IIC, SPI development, ucos operating system. In addition, Developed and validated barometer drivers for MAVIC.
- **Data Analysis:** Used Statistical method to analyze the Sensor data by Matlab to make a decision about choosing which is the better sensor for the produce.
- **Dev Environment:** Analytics environment based on Matlab and Shell Scripting on Ubuntu Linux. Wrote the c code to collect the sensor data for more than ten sensors.

**BJ Yunxi Technology**

**Jun. 2015 - Apr. 2016**

*Embedded Software Development Intern*

*Guangzhou, China*

- **Embedded System:** Developed ARM part of the master control module and developed VoIP based on Asterisk. Realized online upgrade in the master module and the SLP Protocol Analysis module.
- **Software Development:** Applied technology and tools: Keil developertools, Mysql database, VxWork driver development, built VoIP server based on Asterisk, built SVN server.

## PROJECTS

**Network Protocol Parser** *C++, Binpac language, Click System, Bro System*

**May. 2018 - Sep. 2018**

- Design the RIP, DNS, HTTP, FTP, SSH network protocol parser by C++ and Binpac language.
- Implemented these network protocol parser based on the Binpac and Open Pcre lib. As a result, it is easily integrated into the other project. For instance, I had integrated it into Bro and Click system in this project.

**Paper Track System** *Python, Tkinter, MVC Design Pattern*

**May. 2018 - Aug. 2018**

- Designed the GUI of Paper tracking system by Tkinter. Realized the paper manager code.
- Applied technology: Tkinter, Python3.5, MVC Design Pattern.

**VoIP Audio Remote Control System Based on SIP Protocol** *C, SIP, RTP, VoIP, ARC*

**Sep. 2015 - Jun. 2016**

- Designed and implemented a VoIP audio remote control voice terminal software based on OMAP-L138 ARM9 chip.
- Implements VoIP audio control application, Main control module with logic control, hardware initialization, reset examination and SIP user agency initialization.
- Implemented SIP user agency module which includes three things: SIP communication module, RTP transmission module and WEB configuration module.
- Implemented SIP protocol stack by oSIP open lib, RTP protocol stack by JRTPLib, and WEB server by GoAhead.
- Test result: VoIP communication system delay time is less than 120ms, and system language communication quality MOS is 4.8.

**2015 RoboMaster Robot Competition** *C, ARM, UART, I2C, SPI*

**Sep. 2014 - Jun. 2015**

- Finished STM32F4 communication with a remote pan and adjustment of PID parameters.
- Worked out main Control Board receives remote control data error after adding the door dog.

**An Encrypted File system Based on Linux** *C++, QT, Shell Scripting, eCryptfs*

**2014 - 2015**

- Designed team work plan and the overall framework of the project.
- Realized eCryptfs cryptographic file system implementation mechanism, designed UI Interface based on QT, dealt with root permissions file access vulnerability.
- Applied technology: QT Development, Linux file system, GCC, Makefile and gdb.
- Finished perfectly and got second prize of USTC.

## HONORS AND AWARDS

- The Excellent graduate in USTC and Anhui province 2017
- National master scholarship (TOP 2%) 2015
- Software Design competition: Second prize (USTC)
- Robomasters robot competition: First prize (East China), Second prize(China) 2015