# Bingbing Rao

## Objective

Research interest in Big-Data Computing, Data-intensive Computing and Distributed and Parallel System.

### Education

09/08–06/12 **Bachelor**, *Electrical & Information Engineering*, Wuhan University of Sci and Tech.

09/09-06/12 Bachelor, Public Administration, Huazhong University of Science and Technology.

08/15–08/17 **Master**, *Computer Science*, University of Central Florida.

05/16-Pres. **PhD Condidate**, *Computer Science*, University of Central Florida.

#### Skills

**Programming** C(Advance), C++(Advance), Scala&Java(Advance), Assembly(Advance), Shell Script(Advance), Language Python(Advance), R(Advance), PHP(Beginner)

Operating Linux, Windows System

## Research Experience

08/15-Pres. **Graduate Research Assistant**, *Bigdata Computing Lab*, University of Central Florida, USA.

Designed and analyzed parallel systems for Big-Data and Data-intensive Computing System under the supervision of **Dr. Liqiang Wang** 

- Build a dynamic network activity model to characterize temporal trends in a large social-media network of interactive human agents
- Propose an approach to detect abnormality and analyzes root causes using Spark log files
- o Research on optimization about Apache Spark Performance based on programming analysis

10/10-06/12 Research Assistant, Control Theory Laboratory, Wuhan University of Sci and Tech, China.

Designed and assembled the following devices(using C and Assembly languages to control the microcontroller chips) in Undergraduate National Electronic Design Contest(3-people team)

- o Arbitrary waveform generator: Used micro controller to transmit controlling parameters to DDS chip
- o Frequency Indicator: Captured relatively precise frequencies of tested signals using FPGA
- *Digital storage oscilloscope*: Realized FPGA reading data from RAM; calculated relevant parameters displayed on a LCD monitor
- Digital signal transmission performance analyzer: Designed a circuit to do Manchester decoding for encoded digital signal; test the signal transmission performance

### Work Experience

02/12–03/14 Driven Software Development Engineer, MacroSAN Technologies Co.,Ltd., Shenzhen, China.

- Developed and maintained Direct Memory Access (DMA) module in Linux
- Maintained network bonding in Linux
- Key work in transplantation of Linux system project which includes
- Transplantation of DMA, MSGPIO, Network bonding modules
- Coordination management of driver modules

03/14–08/15 **IT & Control Manager**, *Elivebuy Co., Ltd.*, Shenzhen, China.

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- Deployed and maintained Collaborative office system, including Office Automation system, Network System and Storage System
- Maintained and improved the ECPP ERP system
- Designed and Developed basic Warehouse Management System (WMS), Finance management system (FMS), SKU encoder
- Coordinated and managed sales and logistics department

## Honors

08/2013 **R & D department of the 22th Honor Award**, *MacroSAN Technologies Co.,Ltd*, Shenzhen, China. Independently developing DMA module, optimizing code and improving system performance in MacroSAN

## Publications

- 2017 Lu Siyang, **Bingbing Rao**, Wei Xiang, Tak Byungchul, Wang Long, and Wang Liqiang. Log-based abnormal task detection and root cause analysis for spark. *In the the 24th IEEE International Conference on Web Services (ICWS)*, 2017
- 2016 Chung Wingyan, **Bingbing Rao**, and Wang Liqiang. Dynamic trend detection in u.s. border security social-media networks. *In 2016 Interservice/Industry Training, Simulation and Education Conference (I/ITSEC)*, 2016