# Shaoyi Li

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## EDUCATION

**Auburn University**                                                                  Aug 2017 - Dec 2019
Electrical and Computer Engineering Master                                                Auburn, AL
- GPA: 3.88/ 4.0
- Github: https://github.com/szl0144
- Homepage: https://shaoyili0324.com/
- Thesis: Low Latency Queuing Control in Extendable Mobile Ad-hoc Network Emulator (EMANE)

**Hangzhou Dianzi University**                                                          Sep 2013 - Jun 2017
Electronic and Information Engineering Bachelor                                        Hangzhou, China

## PROFESSIONAL EXPERIENCE

**PAX Technology**                                                                     Oct 2020 - Dec 2020
System Operation Administrator                                                        Jacksonville, FL
- Troubleshoot PAXSTORE system vulnerabilities in Dell Server iDRAC, vSphere ESXi host, vSphere vCenter, Zabbix and Virtual machines under CentOS, SUSE and Windows Operating system using bash scripts
- Release and update development server systems, set up and maintain Luna EFT HSM encryption machine, DNS servers, storage servers, web servers, Zabbix servers and Virtual Machines for US and China developments teams
- Monitor the systems using Zabbix
- Create system troubleshoot manuals for US and China system administration department
- Administrate, operate and monitor the Database with MySQL

**Auburn University**                                                                  Aug 2018 - Oct 2020
Research Assistant in Real-Time Networking Lab                                            Auburn, AL
- Designed and debugged a novel low-latency network scheduling module for various queueing policies using C/C++ under Linux Ubuntu system, and evaluated the algorithm in WAN under Common Open Research Emulator (CORE)
- Implemented and debugged a WiFi batteries lifetime saving scheduling algorithm for CSMA protocol in Network Simulator 3 (NS-3) using C/C++ under Linux Ubuntu system
- Forecasted COVID-19 cases in Italy with short-term memory (LSTM) and modified the SEIR model with estimated model parameters using Python
- Predicted scene depth from self-driving monocular video and studied the influences of Age of Information in frame sampling with DispNetS model using Python

**China Telecom Americas**                                                             May 2018 - Oct 2020
Regional Manager Assistant (Volunteer)                                                        Remote
- Expands brand among Alabama. Creates highest campus market growth rate record 1576.92% among United States in 2018 summer internship and acquired more than 1000 international students customers.
- Coordinates 118 China orientations of American Universities and 44 Chinese spring festival gala to promote and advertise products as program leader
- Analyses regional marketing data, negotiates 59 annual contracts, established 17 new partners in Midwest USA (18 States) Chinese communities with my supervisor
- Reponsible for running the regional TikTok account including story design, filming and video production

**Huzhou Kefeng Magnetic Industry Co., Ltd**                                           Jun 2015 - Jul 2015
Research Internship                                                                     Huzhou, China
- Assisted in the research program of Mn-Zn ferrite with high impedance and wide anti-jam frequency range, optimized the manufacturing process using LEAN principles
- Finished a survey of the marketing, competitors, opportunities and risks of the research program in Yangtze River Delta area
- Led 2015 and 2016 National Undergraduate entrepreneurship training program basing on the program
- Led and won the first prize in China College Student's Entrepreneurship Competition (Zhejiang Division)

## PROJECT EXPERIENCE

**Low Latency Queuing Control in Extendable Mobile Ad-hoc Network Emulator (EMANE)**    Aug 2018 - Present
Leader in Real-Time Networking Lab                                                        Auburn, AL
- Designs, implements and debugs a novel low lantency queueing module for real world system in EMANE's MAC layer using C/C++ under Ubuntu 14.04, 16.04, 18.04 on Linux.
- Configures UDP traffic flow at client application layer using Multi-Generator (MGEN) and develops MGEN source code to generate required data using Python.
- Develops UDP/IPv4 protocol in IP header for the queue module identification. (IP layer)
- Configures the WLAN network topology and routers using Optimized Link State Routing (OLSR) protocol and Common Open Research Emulator (CORE) GUI. Creates TDMA schedule xml file for packets Scheduling in WLAN. (Physical layer)
- Troubleshoots the network with Wireshark and system log file. Runs experiments by self-designed Python scripts and bash files. Processes packet data with self-designed crawler Python script. Manage the code using Github.

**Age of Information in scene depth prediction from monocular video**                   Aug 2020 - Oct 2020
Leader in Real-Time Networking Lab                                                        Auburn, AL
- Predicted scene depth from self-driving monocular video and studied the influences of Age of Information in frame sampling with DispNetS model using Python

**Lifetime Adjustable Design for WiFi radio via Sleep-Wake Scheduling in Network Simulator 3 (NS-3)**    Nov 2019 - Dec 2019
Leader in Real-Time Networking Lab                                                        Auburn, AL
- Developed and debugged a WiFi batteries lifetime saving exponential backoff algorithm for IEEE802.3 protocol on NS-3 using C/C++ under Linux.

## TECHNICAL SKILLS

- C, C++, MATLAB, Python, HTML, CSS, Machine/Deep Learning

## COMMUNITY ENGAGEMENT

- Vice President (Public Relations and Business Development), Chinese Students Organization, Auburn, AL
- President, The 33th Hangzhou Dianzi University Students Union of Electronic Department, Hangzhou, China