Cheng Li

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Education Background

- **Beijing University of Posts and Telecommunications(BUPT)**
    - **M.E.   Software Defined Networking**   **(2014-Present)**
    - **B.E.   Communication Engineering**   **GPA:3.5/4 (2010-2014)**

Internship

- **China Academy of Telecommunication Research of MIIT(CATR) —— OTN Extension of OpenFlow1.0, Load Balancing Application (2013.7 - 2014.1)**
    - Complete encapsulation of OpenFlow1.0 data structure, and add OTN extended bytes
    - Develop an original Controller Miracle which supports IP and OTN
    - Test OTN extension via Miracle, Mininet, and Sprient Testcenter
    - Achieve the load balancing application between IP and OTN demo

- **China Future Network Valley • Future Networks Innovation Institute —— Research of SDN Controller (2014.3 – 2014.9)**
    - Complete the 16th chapter "Development of Micro-Controller:Miracle" of 《SDN Core Principles and Application Pratice》
    - Complete an outstanding dissertation for bachelor's degree "Research of SDN controller and Development of Micro-Controller" (TOP1%)
    - Study and Research OpenDayLight (MD-SAL)

Project Experience

- **Design and Implement Open eXchange Protocol of SDN Control Plane (2015.3 - 2015.9)**
    - Research the West-East Interface of SDN controller, and propose Open eXchange Protocol
    - Design the Open eXchange Protocol, and implement it on SDN controller "Ryu"
    - Achieve the coordinate work of multiple controllers to make the shortest forwarding cross multi-domains

- **Load Balancing on Fattree Topology Based on OpenFlow (2015.1 - 2015.2)**
    - Implement two extension functions of traffic design: Random and Probability Stride
    - Implement load balance application based on DLB (Dynamic Load Balancing) algorithm in Fattree topology
    - Evaluate the average bandwidth ratio of different algorithms

- **HTTP Acceleration Application Based on VLAN (2013.3 - 2013.5)**

  - Implement the test platform by RYU/POX + OpenvSwitch + Nginx to accelerate the speed of HTTP traffic
  - Achieve the customized service provider, and support switching of VLAN

Skills

- Familiar with TCP/IP, OpenFlow (3 years), SDN (3 years), Docker (2 months)
- Programming language: Python (3 years), Java (6 months)
- System: Linux (Familiar with Ubuntu)
- Languages:
  - Major: Chinese
  - Second: English (CET-6)

Awards

- "Honorable Mention" of ICM (The Interdisciplinary Contest in Modeling) of American University Students (2013)
- "Winning Prize" of National University Software Defined Networking Competition (2015)
- "Outstanding Dissertation for Bachelor's Degree" of BUPT: "Research of SDN controller and Development of Micro-Controller" (TOP1%)
- "The Second Prize" of "Challenge Cup" Capital University Student Extracurricular Academic Science and Technology Work Competition
- "The Second Prize in Final" & "The Best Pronunciation Award" of 2012 CCTV "Star of Outlook English Talent Competition" (Drama) of Beijing
- "The Second University Scholarship" of BUPT for three times (Top:47/593)

Additional Skills

- **Leadership**

  - Hainan "Beautiful Minds" college students volunteer teacher association (2011-2013)

    - Founder and minister of Issue Service Group, minister of Public Relations and Research center
    - Leader of "CHENGMAI" detachment for a year, and organized the flowing activities:
      - Volunteer teaching in summer
      - Share meeting of College entrance examination in winter
      - Book donation
  - Minister of Public Relations of "Student Association Union of BUPT" (2011)

- **Teamwork**

  - BUPT Baidu club member.   BUPT IEEE official club member (2012-2013)
  - Volunteer of the first IWS (International Wireless Symposium), and responsible for the booth of BUPT (2013)

Hobbies

Programming, Improvisational Theater, Basketball, Photography