

# JUNWEI MENG

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## 🎓 EDUCATION

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**Xi'an Jiaotong University** *M.S, Computer Science and Technology* 2016.9 – Present  
*My research focuses on the design of SDN data plane and FPGA development.*

**Xi'an Jiaotong University** *B.E, Computer Science and Technology* 2012.9 – 2016.6  
*My research focuses on the improvement of the image scrambling encryption algorithm*

## 👥 INTERNSHIP

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**Xilinx CTO Admin Research Lab in Singapore** 2018.4 – 2018.7

Project: Programmable Packet Scheduling Strategy In Datacenter

- Designed queue scheduling IR and specified scheduling structure for dynamically changing scheduling methods on different Network targets.
- Designed a multi physical queue module and deployed it to the FPGA board (SmartNic or OnetSwitch) which can provide on-demand differentiated services for applications.
- The system on the Kintex-UltraScale board can reach up to 25Gbps throughput in the experimental environment.

## 👥 PROJECT EXPERIENCE

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**Research for the deployment algorithm of CDN Network Server Nodes** 2017.3 – 2017.4

- Goals: Under the premise of satisfying all the consumer node, design a system which can automatically obtain the global optimal solution to setup the CDN server and the minimum total costs.
- Solution: Use heuristic algorithm and shortest path algorithm(spfa) by iteration to nearly achieve the optimal solution.

**PPPoE Enterprise Switch development** 2017.3 – 2017.8

- Developed the baseline project of ONetSwitch 10g with SDNet.
- Designed a new dataplane for the service chain supporting PPPoE with P4 and implement the whole architecture on the ONetSwitch 10g.

**DFlow Switch Counter for Network Measurement** 2017.9 – 2017.11

- Designed the DFlow Counter module to cache and update the counter value with high-performance by reducing time solving hash conflict.
- Designed three-level hash table structure and Disco compression algorithm to save hardware resources.

## ⚙️ SKILLS

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- Skilled in: C/C++; Verilog, Vivado, HLS, SDX; Linux.
- Familiar with: Python; P4, Mininet; DPDK, Docker, Wireshark.

## ♡ HONORS AND AWARDS

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- CCF Software Capability Authentication, top20% 2016
- Huawei Code Craft Competition'17 Silver Medal, top2% 2017.3 - 2017.4

## 📖 MISCELLANEOUS

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- Language: English(CET-6)