Ph.D.

Bo Hu

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ACADEMIC INTERESTS

Systems and Networking, Distributed Systems, Mobile Systems

EDUCATION

Yale University — New Haven, CT
Ph.D. Student, Department of Computer Science — Aug 2015 – Aug 2020 (Expected)
Supervisor: Wenjun Hu, Assistant Professor, Yale University

Tsinghua University — Beijing, China
B.E., Department of Electronic Engineering — Aug 2011 - Jul 2015

HONORS AND AWARDS

- MobiCom Student Travel Grant, 2016
- Scholarship of Academic Excellence (Top 3%), 2014
- Scholarship of Academic Improvement, 2014

RESEARCH AND PROJECTS

User-centric Scheduling of Cooperated Offloading Workload — Yale University, New Haven
Supervisor: Wenjun Hu, Assistant Professor — Oct. 2016 – Present

- This project aims to propose an on-device user-centric offloading scheduler to leverage the correlation among different offloading workloads within the same device, and therefore, improve the overall performance of the mobile system.

Auto-Tuning Fine-Grained Parallelism in Data-Analytics System with Libra — Yale University, New Haven
Supervisor: Wenjun Hu, Assistant Professor — Oct. 2015 – Oct. 2016

- We propose Libra, to auto-tune job partitioning in data analytics systems. The key observation is that there is an optimal task size per application (stage). This optimal varies by the application logic, and so we need to dynamically determine task sizes during run time.

Towards Fertile, Flexible and Future-proof Enterprise Networks — Tsinghua, Beijing
Supervisor: Jun Bi, Professor — Sep. 2014 – Jan. 2015

- This project is part of China's National High-tech R&D Program ("863" Program): designed, implemented and operated a testbed platform for innovative network architectures, protocols and applications. The current design and implementation are inspired by the SDN paradigm.
- We worked on the open-function network devices (software based). The extended OVS software switches perform not only packet forwarding, but also protocol-oblivious actions, state maintenance, third-party app agent hosting, etc.
- Provided a reliable and efficient channel to bridge controller and underling datapaths

Cloud Computing Data Analysis System Based on SDN (software-defined network) — Tsinghua, Beijing
Supervisor: Wei Xu, Assistant Professor — Feb. 2014 – Feb. 2015

- This project aims to use Multicore Processor and NetFPGA to realize: 10G network link emulation, Wire-speed Network Packets Capturing and Replay, Network Traffic Shaper and Hardware-based Network Fault Injection
- We worked on using NetFPGA to realize the wire-speed network packets capturing, delay and replay. I took the charge of writing the Ryu controller program to interact with the hardware.

TEACHING

- CPSC 426/526 Building Distributed Systems, Fall 2016, Teaching Fellow, Yale University
- CPSC 625 Advanced Distributed Systems, Spring 2017, Teaching Fellow, Yale University

SKILLS

- Programming Languages: C, C++, Java, Matlab, Python, Verilog, SQL
- Operating Systems: Linux, Windows
- Other: Latex