

Report on Yearly Team Meeting - 2015

Bio and Research

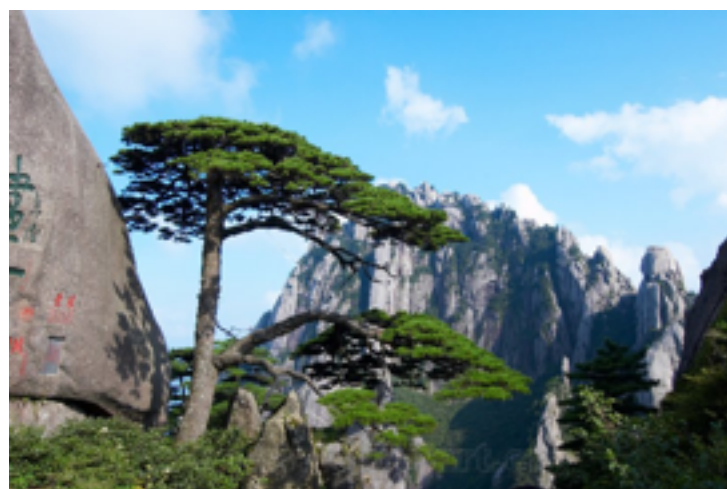
Lin Wang

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Who am I?

- Lin Wang (王林)
 - leihn.wong@uni.lu or leihn.wong@gmail.com
 - leihnwong.github.io
- Born in a small city in Eastern China, close to Nanjing & Shanghai
 - The Yellow Mountain, Yangtze River, Traditional Chinese Gardens
- Spent the last 10 years in Beijing



Background

- Education
 - 2010/09 – 2015/07 **University of Chinese Academy of Sciences (UCAS)**
 - **Research topic:** on optimizing the performance and energy efficiency of data center networks
 - Ph.D. in Computer Science (2012 – 2015)
 - M.S. in Computer Science (2010 – 2012)
 - 2006/09 – 2010/06 **Beijing Institute of Technology (BIT)**
 - B.S. in Computer Science and Engineering



Background

- Research Experience

- 2015/09 – present **SnT, University of Luxembourg (UL)**

- Research Associate

- Research topics:

- Cloud brokering: models and optimization problems

- Distributed cloud computing: big data processing

- Optimization problems in networked systems

- 2012/09 – 2014/01 **IMDEA Networks Institute, Madrid**

- Research Intern

- Research topics:

- Power-efficient VM assignment & Google+ data analytics

- 2010/09 – 2015/06 **Institute of Computing Technology, CAS**

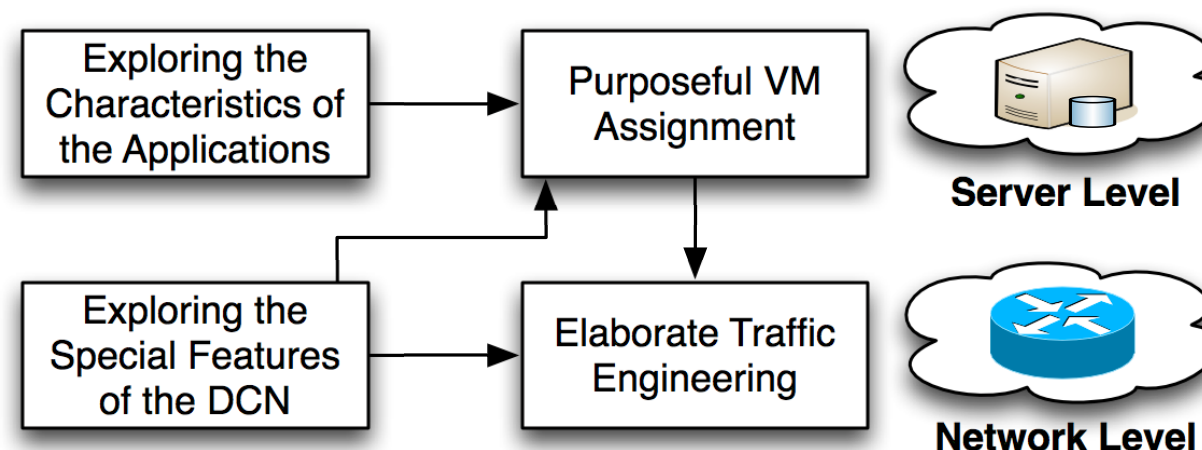
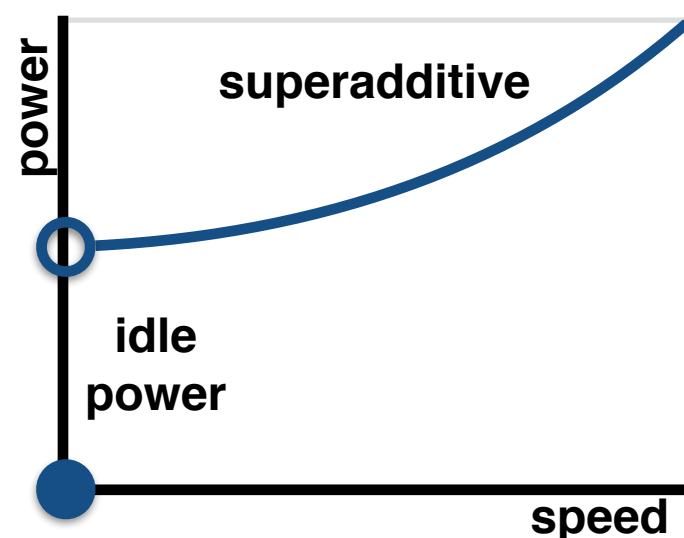
- Research Assistant

- Ph.D. studies



What I did?

- Theory: complexity theory, approximation, randomization
 - Rate adaptive energy-efficient routing (TAMC'12, NCA'13, IEEE JSAC)
 - Joint VM assignment and traffic engineering for data center networking (ICCCN'13, ACM SIGMETRICS PER, IEEE JSAC)
 - Deadline-constrained flow scheduling and routing (ICDCS'14)
 - Power efficient virtual machine assignment (ACM PODC Workshop, FGCS, TCC)



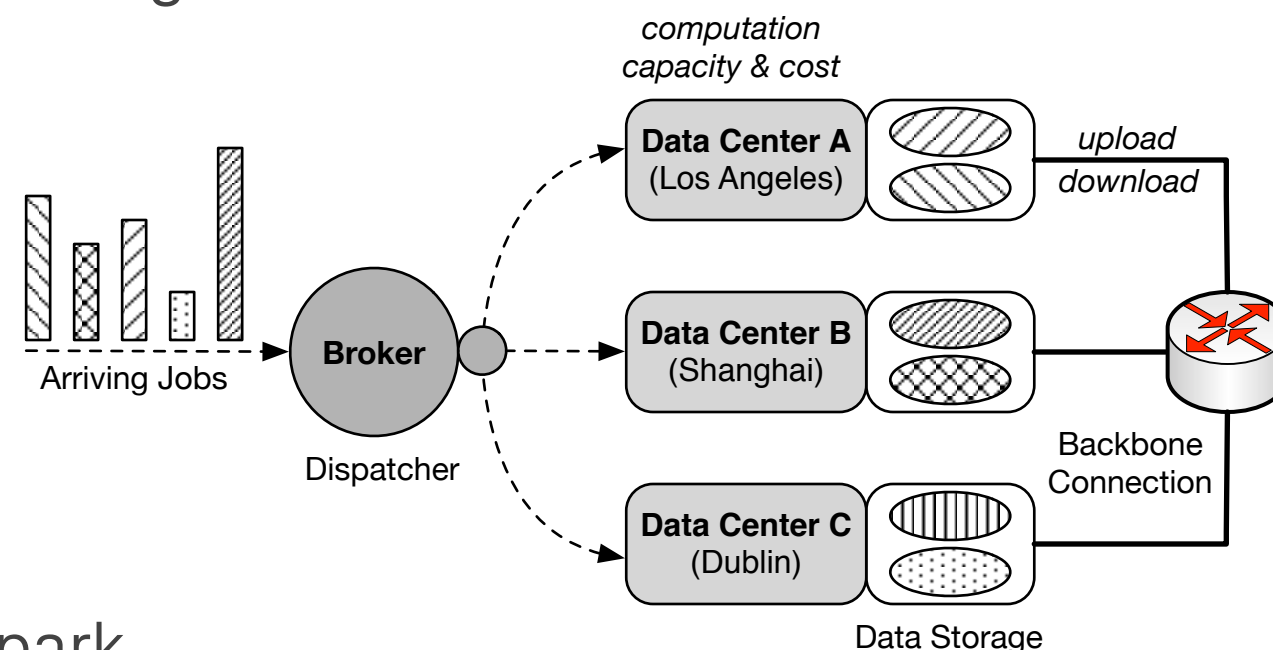
What I did? (contd.)

- Practice: prototype, implementation, open-source contribution
 - Scalable network control plane design for software-defined data center networks (ICDCS'15, TPDS)
 - Graph processing and analytics using GraphLab and Spark GraphX
 - Network-as-a-Service: enabling in-network data processing (ISCC'15)



What I am doing?

- Scheduling for operational cost minimization in geo-distributed data centers
 - Cloud brokerage, federation
 - Job/task assignment + task scheduling
 - Computation, communication
 - GreenCloud simulator extension
 - Dzmitry, Mateusz
- Distributed Cloud Computing
 - Geo-distributed MapReduce or Spark
 - Programming models, resource allocation, security etc.
- Protocol design for efficient data transmission in data centers



What would be the future?

- Produce deliverables in the aforementioned research lines
 - Publish research papers in (top) conferences or journals
 - Assist on funding application and project progressing
 - Attend research activities to disseminate research results
 - Fill patents
- Extend collaborations within the group or with external institutions
 - Prof. Antonio Fernandez Anta (IMDEA Networks)
 - Prof. Shaolei Ren (University of California, Riverside)
 - Dr. Kai Zheng (Huawei Technologies)
 - Dr. Lei Jiao (Bell Labs)
- Learn languages, make friends and enjoy life in Luxembourg!

THANKS/MERCI/谢谢