Ting Dai

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EDUCATION

- **North Carolina State University** — Raleigh, NC
  Ph.D. Student in Computer Science — 08/2014-Present
  Advisor: Dr. Xiaohui (Helen) Gu
  GPA: 4.0

- **Nanjing University of Posts and Telecommunications** — Nanjing, China
  M. E. in Computer Software and Theory — 09/2011-04/2014
  GPA: 3.78 — Rank: 2/81

- **Nanjing University of Posts and Telecommunications** — Nanjing, China
  B. E. in Information Security — 09/2007-06/2011
  GPA: 3.85 — Rank: 2/89

PROFESSIONAL EXPERIENCE

Research Interests: Performance Diagnosis, Debugging, Distributed System

- **Research Assistant** 05/2015-08/2015 Credit Suisse & NC State Univ.

  ***CCM**: Cloud Configuration Management System for Elastic Application Deployment in Private Clouds*

  - Made an Easy-to-use application deployment tool.
  - Implemented automatic component composition and instantiation.
  - Accomplished Elastic auto-scaling to handle: Overload conditions, Resource contentions, and System anomalies.

- **Research Assistant** 01/2015-05/2015 Dance Lab @ NC State Univ.

  Studying Online Server Performance Bugs and diagnosis tools in Production Cloud Computing Infrastructures

  - Reproduced system performance bugs.
  - Used PerfScope, an online performance bug inference tool to diagnosis the bug-related functions.

- **Teaching Assistant** 08-12/2014, 01-05/2015 NC State Univ.

  Discrete Mathematics for Computer Scientists (CSC 226)

  - Hold weekly office hours, grade homework, grade lab exercise using NovaNET, create/grade exams.

- **Research Assistant** 11/2011 – 12/2013 Jiangsu High-Tech Research Lab for WSN, China

  Multi-types of Hybrid Security Mechanisms based on Keys in Wireless Sensor Networks

  - Proposed two self-renewal hash chain schemes with low overheads, strong tolerance of message loss and the ability of resisting man-in-the-middle attack.
  - Developed a new identification authentication scheme with memory efficiency, scale expansion and query convenience.
  - Improved the clustering routing algorithm for large-scale Wireless Sensor Networks.

SELECTED PUBLICATIONS

[1] **Ting Dai**, Haiping Huang, Yang Lu, Ruchuan Wang and Xinxing Pan, "Research on Migration Strategy of Mobile Agent in Wireless Sensor Networks", International Journal of Distributed Sensor Networks, Vol. 2013, Article ID 642986, 13 pages, 2013.

[2] Haiping Huang, **Ting Dai**, Ruchuan Wang, Xiaolin Qin and Jiutian Chen, "Novel Self-renewal Hash Chain based on (*t*, *n*) Threshold and Division Tree", Journal of Communications, Vol. 34, No. 4, pp. 70-81, Apr. 2013. (in Chinese)

[3] **Ting Dai**, Haiping Huang, Ruchuan Wang and Xinxing Pan, "Novel Self-Renewal Hash Chain based on Ito-Saito-Nishizeki Secret Sharing Scheme", The Journal of China Universities of Posts and Telecommunications, Vol. 19(Suppl. 2), pp. 122-127, Oct. 2012.

[4] Li Liu, **Ting Dai**, Yi Dou, Haiping Huang, JunJie Huang and Ning Ye, "Simulation of the Park Behaviors in a Shopping Mall of Dalian", Advanced Material Research, Vol. 317-319, pp. 2133-2137, Aug. 2011.

[5] Haiping, Huang. **Ting**, **Dai**. *et al*. 2013. A Broadcast Authentication Method based on Deterministic Finite Automation and Game of Life in Wireless Sensor Networks. Chinese Patent Application ZL201110126518.6, filed May 13, 2011, and issued September 25, 2013.

[6] Haiping, Huang. **Ting**, **Dai**. *et al*. 2013. A Method of Tracking and Locating Container Logistics based on Radio Frequency Sensor Networks. Chinese Patent Application ZL201110157187.2, filed June 13, 2011, and issued November 27, 2013.

ACADEMIC HONORS

- National Scholarship for Postgraduate Students, 2013, 2012.
- Scholarship for Outstanding Postgraduate Students, 2013, 2012.
- Winning Prize in Yangtze River Delta in the 4th Graduate Science Star, 2013.
- 2nd Prize in National Post-Graduate Mathematical Contest in Modeling, 2012.
- 2nd Prize in China Colleges and Universities Contest of Computer Courseware, 2012.
- 3rd Prize in Jiangsu Province in the 12th "Challenge Cup" Science and Technology Contest, 2011.
- Outstanding Bachelor Award, 2011.
- Outstanding Undergraduate Dissertation Award, 2011.
- The Best Student Award, 2010, 2009, 2008.

TECHNICAL SKILLS

- **Programming**: C/C++, Java, Python, Shell Script, HTML, SQL, LATEX, Matlab
- **Systems, Platforms**: Openstack, Docker, Cassandra, Hadoop, Zookeeper