# Chen Luo

School of Software, Tsinghua University – Beijing – China

☐ (86)188 1091 5243 • ✉ luoc13@mails.tsinghua.edu.cn

🌐 luochen01.github.io

## Education

**Tsinghua University**, China                                    *Sept. 2013–July 2016 (Expected)*
M.Eng. in Software Engineering
GPA: 94.1/100, Ranking: 2 out of 136
Thesis: Policy-Based Privacy Checking for Big Data Analytics Systems

**Tongji University**, China                                                      *Sept. 2009–July 2013*
B.Eng. in Software Engineering
GPA: 4.72/5, Ranking: 2 out of 169
Thesis: Design and Implementation of a Distributed Key-Value Storage System

## Research Experience

**PSpec-SQL**, Tsinghua University                                            *July 2014–Present*
o Tsinghua–Intel Joint Research Project
o Built a privacy-integrated data analytics system on top of Spark-SQL, which:
   - Provides a high-level privacy language for specifying privacy policies
   - Enforces privacy compliances against submitted queries using program analysis techniques
   - Integrates with differential privacy to offer provable privacy guarantees

**Large-Scale Software Model Inference**, Tsinghua University               *Mar. 2014–July 2014*
o Independent Research Project
o Proposed a MapReduce-based approach for inferring software models from large logs
o Demonstrated efficiency and scalability with extensive experiments on AWS cloud

**DQCup**, Tsinghua University                                              *Sept. 2013–Dec. 2013*
o Course Project for *Advanced Topics in Data Quality*
o Developed a data cleaning tool integrating various data cleaning techniques for a given task
o Ranked 1st among 15 teams in terms of detection accuracy, repairing accuracy, and performance

**KVStore**, Tongji University                                              *Dec. 2012–June 2013*
o Bachelor Thesis Project
o Built a distributed key-value storage system with in-memory/persistent engines
o Key features include fault tolerance and automatic load balancing

## Work Experience

**Research Assistant**, Tsinghua University                                 *Mar. 2014–Present*
o Led a group in conducting research on privacy-preserving data analytics systems
o Conducted independent research on formal methods

**Software Developer Intern**, eBay China Development Center                *July 2012–Mar. 2013*
o Participated in the development of eBay's web application framework
o Redeveloped the internal web traffic analytics system with MapReduce

**Research Assistant**, Tongji University                                   *Mar. 2011–June 2012*
o Participated in the development of a customer service and support system

## Teaching Experience

**Teaching Assistant**, Tsinghua University                              *Mar. 2015–July 2015*
o Course: Modeling and Verification of Software Systems
o Designed and marked course projects, delivered lectures, and Q&A

**Teaching Assistant**, Tongji University                                *Mar. 2011–July 2011*
o Course: Object-Oriented Programming C++
o Designed and marked course assignments, tutored laboratory classes, and Q&A

## Honors & Awards

o First Class Scholarship, Tsinghua University (top 10%)                  *2014, 2015*
o Graduate with Honor of Shanghai, Tongji University (top 5%)                   *2013*
o Outstanding Student, Tongji University (top 5%)                         *2010, 2011*
o First Class Scholarship, Tongji University (top 5%)                           *2011*

## Presentation

o Inferring Software Behavioral Models with MapReduce. *International Symposium on Dependable Software Engineering: Theories, Tools and Applications (SETTA)*, Nanjing, China, November 2015

## Publication

[1] **Chen Luo**, Fei He, and Carlo Ghezzi. Inferring Software Behavioral Models with MapReduce. In *Proceedings of the 1st International Symposium on Dependable Software Engineering: Theories, Tools and Applications (SETTA)*, LNCS 9409, pages 135–149, November 2015
Available at: http://luochen01.github.io/papers/model_2015.pdf

## Papers Submitted

[1] **Chen Luo**, Fei He, Fei Peng, Dong Yan, Dan Zhang, and Xin Zhou. PSpec-SQL: Enforcing Privacy Policies in Big Data Analytics. *Under Submission*
Available at: http://luochen01.github.io/papers/pspec-sql_2015.pdf

[2] **Chen Luo**, Fei He, Fei Peng, Dong Yan, Dan Zhang, Xin Zhou, and Bow-Yaw Wang. PSpec: A Formal Privacy Language for Data Analytics. *Under Submission*
Available at: http://luochen01.github.io/papers/pspec_2015.pdf

[3] **Chen Luo** and Fei He. SMT-Based Query Tracking for Differentially Private Data Analytics Systems. *Under Submission*
Available at: http://luochen01.github.io/papers/tracking_2015.pdf

## Technical Skills

o **Programming Languages**: Java, C/C++, Scala, Python, SQL, R, Bash
o **Databases and Systems**: MySQL, Hadoop, Spark, Spark-SQL, Hive
o **Software Tools**: Eclipse, LaTex, Visual Studio, Matlab