

# Kai Huang

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Homepage: To be updated soon

## Education

- **University of Southern California** Los Angeles, United States  
*Master of Science(M.Sc.), Electrical Engineering* 2013 - 2017(*expected*)
- **Tsinghua University** Beijing, China  
*Bachelor of Science(B.Sc.), Electrical Engineering* 2008 - 2012

## Programming and Computer Skills

- **Programming Language:** Java, C++, C , HTML, CSS, Javascript
- **Applications:** MATLAB, Microsoft Office, LaTeX, VHDL
- **Operating System:** Windows, Linux

## Honors and Awards

- Dean's Master's Fellowship Award at University of Southern California(Top 5%) , 2013
- Outstanding Undergraduate Thesis Award at Tsinghua University(Top 5%), 2012
- EE Departmental fellowships for Academic Excellence , 2010
- Gold Medalist in National Undergraduate Physic Contest(Top 3%), 2010
- Gold Medalist in 24th Chinese National Physic Olympiad, 2008
- Admission Exam Waiver to Tsinghua University, 2008

## Work Experience

- **University of Southern California**  
Autonomous Network Research Group Los Angeles, United States  
**Research Assistant** *May-Sep, 2014*  
  
Development of Mathematical Model for vehicle-mounted sensor on USC transportation buses, estimating and visualizing transportation traffic flow in downtown Los Angeles based on data streaming from embedded inductive loops sensor, algorithms for multi-objective transportation control take into account both commuter delays and vehicular pollution impact directing traffic.
- **Tsinghua University**

Development of the framework to study cooperative data transmission among macro and micro base stations in a heterogeneous mobile network. Proposal of the optimal transmission scheme in terms of transmission speed in the heterogeneous scenario under the actual urban cellular network, and Simulation for its potential speed gain in MATLAB given the real industrial data.

## Publications

1. Keyvan R. Moghadam, Kai Huang, and Bhaskar Krishnamachari, "An Algorithmic Approach for Environmentally-Friendly Traffic Control in Smart Cities," in *ACM UrbanGIS on Smart Cities and Urban Analytics, SigSpatial*, Seattle, WA, USA, November 2015.
2. Kai Huang, Songtao Lu, and Jingbo Guo, "An optimized cooperative transmission scheme for interference mitigation in heterogeneous downlink network," in *Proceedings of 2012 IEEE 76th Vehicular Technology Conference (VTC)*, Quebec City, QC, Canada, September 2012.

## Languages and Standardized Test

- **Languages:**
  1. **English** (Professional Working Proficiency)
  2. **Mandarin** (Native or Bilingual Proficiency)
  3. **Cantonese** (Native or Bilingual Proficiency)
  4. **Spanish** (Elementary Proficiency)
- **GRE General:** Verbal: 152 (53% below) Quantative: 164 (90% below) Analytical Writing 3.0
- **TOEFL iBT:** 104 (Reading 27, Listening 26, Speaking 23, Writing 28)
- **CET 6, CET 4:** Pass

## Miscellaneous

- **Countries Visited:** United States, Canada, Mexico, Cuba, China