# SHIH-HAO TSENG

503 Summerhill Drive Apt.4 Ithaca, NY 14850 U.S.A.

(607) 280-7864 (Mobile) st688@cornell.edu

#### **EDUCATION**

#### Cornell University (CU), Ithaca, NY, U.S.A.

Aug. 2013 - Present

PhD student (Advisor: Dr. Kevin Tang, major in Electrical and Computer Engineering)

• Relevant Coursework:

Practicum in Operating Systems, Approximation Algorithm, Convex Analysis, Functional Analysis, Statistical Inference and Decision, Stochastic Systems: Estimation and Control.

### National Taiwan University (NTU), Taipei, Taiwan

Sep. 2008 - June 2012

Bachelor of Science in Engineering (minor in Economics)

- GPA: 92.20/100.00; ranking 2<sup>nd</sup> in a class of 226
- Relevant Coursework:

Algorithm, Data Structure and Programming, Rf Microwave Wireless Systems, Signals and Systems, Advanced Calculus, Macroeconomics, Microeconomics, Probability and Statistics, Quantum Physics.

## Research Interests

#### Software-Defined Networking

• Centralized control, congestion-free routing and high-frequency network updating.

#### Communication System

• Network dynamic model, optimization theory and algorithm.

### **PUBLICATIONS**

S.-H. Tseng, C. L. Lim, N. Wu, and A. Tang.

"Time-Aware Congestion-Free Routing Reconfiguration," in Proceedings of IFIP Networking, 2016.

A. Gushchin, S.-H. Tseng, and A. Tang.

"Optimization-Based Network Flow Deadline Scheduling," in Proceedings of IEEE ICNP, 2016.

S.-H. Tseng, E. Bitar, and A. Tang.

"Random Convex Approximations of Ambiguous Chance Constrained Programs," in *Proceedings of IEEE CDC*, 2016.

# HONORS AND AWARDS

Jacobs Fellowship (CU)

2014

Studying Abroad Scholarship (Ministry of Education, Taiwan(R.O.C.))

2013

Honorary Member of the Phi Tau Phi Scholastic Honor Society

2012

• Presented to seniors from each college in Taiwan ranking within top 1% of their department.

President's Awards (NTU)

2009, 2010, 2011, 2012

 $\bullet$  Four-time recipient; awarded to students ranking within top 5% of their department.

#### **Outstanding Project Award**

2011

• Awarded to the top 10 teams of Cross-Strait Finals of 2011 Innovate Asia Competition (FPGA design).

### SKILLS

**Programming Languages:** Proficient in C++, Python and Verilog; working knowledge of ActionScript, C, Basic, HTML, Java, JavaScript, MySQL, and PHP.

Simulation Tools: Proficient in PSpice, MATLAB, and NS-3.

Languages: Fluent in English; native in Mandarin Chinese and Taiwanese Hokkien; basic understanding of French, German, Spanish, and Japanese.

## EXPERIENCE

#### Cornell University, Ithaca, NY

Aug. 2014 - Present

Graduate Research Assistant/Teaching Assistant

- Developed a virtual SDN test framework to verify congestion-free updating properties.
- Helped teach Introduction to Probability and Inference for Random Signals and Systems.

AT&T, Middletown, NJ

June 2016 - Aug. 2016

Student Intern - Technical II

Developed models and designed algorithms for hybrid software-defined networks.