

# SHIH-HAO TSENG

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U.S.A.

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## EDUCATION

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**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

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### Software-Defined Networking

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

### Communication System

- Network dynamic model, optimization theory and algorithm.

## PUBLICATIONS

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

“Time-Aware Congestion-Free Routing Reconfiguration,” Proceedings of IFIP Networking, 2016.

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

“Random Convex Approximations of Ambiguous Chance Constrained Programs,” submitted to review.

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

“Optimization-Based Network Flow Deadline Scheduling,” submitted to review.

## HONORS AND AWARDS

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**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

- 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

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**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, Spanish and Japanese.

## EXPERIENCE

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**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

**Army, Republic of China Armed Forces**, Taipei, Taiwan Aug. 2012 - July 2013

*Chief Counselor, Second Lieutenant*

- Chief political warfare manager of a company.

## LEADERSHIP AND ACTIVITIES

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**Cornell Taiwanese Student Association (CTSA)**, Webmaster May 2014 - Present

**National Experimental High School at Hsinchu Science Park (NEHS)** Oct. 2010 - July 2012

**Alumni Association**, Founding Member and Director of Information Division

**NTU Electrical Engineering Summer Camp**, Instructor of Programming 2009, 2010, 2011

Languages and Director of Education