

# Chia-Hao Chang

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## Education

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- **The University of Texas at Austin (UT Austin)** **Austin, TX**  
*M.S. in Decision, Info. and Commun. Engr. (DICE), Electrical and Computer Engineering (ECE), Aug 2018 – present*
  - **Advisor:** Prof. John Hasenbsein
  - **GPA:** 4.0/4.0
  - **Related Coursework:** Probability and Stochastic Processes, Large Scale Optimization, Linear Programming
- **National Taiwan University (NTU)** **Taipei, Taiwan**  
*B.S. in Electrical Engineering (EE) with minor in Physics (Phys), Sept 2013 – Jan 2018*
  - **GPA:** 4.16/4.30
  - **Honors:** NTU Presidential Awards for 3 semesters: awarded to students within top 5% in the department
  - **Related Coursework:** Mathematical Analysis (I), Probability and Statistics, Calculus (I) and (II), Discrete Mathematics, Linear Algebra, Differential Equation, Signals and Systems, Principle of Communications

## Research Interest

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- **Applied Probability and Stochastic Processes**
  - Stochastic Modeling
  - Queueing Theory
- **Game Theory**
  - Mechanism Design
  - Strategic Decision Making

## Research Experience

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- **Queueing Theory** **UT Austin, Austin, TX**  
*with Prof. John Hasenbein Jan 2019 – present*
  - Game-theoretic queues on modeling liver transplantation.
- **Wireless Communication** **NTU, Taipei, Taiwan**  
*with Prof. Jean-Fu Kiang Feb 2017 – Jan 2018*
  - Developed a novel transmission scheme of a cognitive wireless-powered communication network.
  - Proposed a subproblem that efficiently solved the originally non-convex optimization problem and proved the relation between two problems.
  - Gave rigorous proofs to the lemmas and theorems proposed in the literature.
- **Electromagnetics and Fluid Mechanics** **NTU, Taipei, Taiwan**  
*with Prof. Jean-Fu Kiang Sept 2015 – Jan 2017*
  - Implemented MATLAB programs to solve Navier-Stokes Equations and simulated the hypersonic regime of aerodynamics.

## Honors

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- **High School Physics Contest Winner in Kaohsiung:** First prize and representative of Kaohsiung city Oct 2012
- **Selection Test for International Physics Olympiad in Taiwan:** Second round Nov 2012

## Teaching Experience

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- **Teaching Assistant** **NTU, Taipei, Taiwan**  
*Volunteered-Service Learning Class Sept 2016 – Jan 2017*
  - Design homework assignments and course materials, manage course website, grade homework

## Employment

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- **Mandatory Military Service**  
*Private, Taiwan Army*  
**Tainan, Taiwan**  
*Feb 2018 – June 2018*
- **Private Tutoring**  
*High School Physics and Mathematics*  
**Taipei, Taiwan**  
*Sept 2014 – Jan 2018*
  - Review course materials, help preparing exams and finishing homework

## Leadership and Extracurricular Activities

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- **Attendee**  
*Texas Wireless Summit 2018*  
**Austin, TX**  
*Nov 2018*
  - Student attendee of Texas Wireless Summit 2018 (Topic : AI and the Mobile Device).
- **Club Leader**  
*NTU Kind-Kids Club*  
**Taipei, Taiwan**  
*Feb 2016 – June 2016*
  - Club leader of a 74-person voluntary service club
- **Club Member**  
*NTU Kind-Kids Club*  
**Taipei, Taiwan**  
*Sept 2013 – June 2017*
  - Weekly volunteered curricular service at Bethany orphanage, Taipei, Taiwan.
- **Camp Activity Organizer**  
*NTUEE Summer Camp*  
**Taipei, Taiwan**  
*July 2014*
  - Held a summer camp dedicated for high school students to get to know electrical engineering.

## Technical Skills

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- **Programming Languages:** MATLAB, Python,  $\text{\LaTeX}$
- **Spoken Languages:** Chinese(native), Taiwanese(native), English(fluent)