

Chia-Hao Chang

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Education

- **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, Analysis and Design of Communication Networks, Game Theory
- **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

- **Applied Probability and Stochastic Processes**
 - Stochastic Modeling
 - Decision Making Under Uncertainty: Stochastic Control and Markov Decision Process
- **Game Theory**
 - Mechanism Design
 - Strategic Decision Making

Research Experience

- **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

- **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

- **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

- **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

- **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

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