

# Chiu, Hong-Ming

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## EDUCATION

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### National Chiao Tung University (NCTU)

Hsinchu, Taiwan

*Bachelor in Electronics Engineering*

June 2017 – June 2020

- Overall GPA: 4.03 / 4.3. Major GPA: 4.11/4.3.
- 2018 Spring Academic Achievement Awards: ranked 3<sup>rd</sup> out of 84 students.
- Exchange Student Scholarship: USD 10,000.

### National Chiao Tung University (NCTU)

Hsinchu, Taiwan

*Undergraduate, Department of Civil Engineering*

June 2016 – June 2017 (transfer to NCTU EE)

- 2016 Fall Academic Achievement Awards: ranked 3<sup>rd</sup> out of 41 students.
- 2017 Spring Academic Achievement Awards: ranked 1<sup>st</sup> out of 41 students.

### University of Illinois at Urbana Champaign (UIUC)

Champaign, IL, USA

*Exchange Student in Electrical and Computer Engineering (ECE)*

January 2020 – May 2020

- Overall GPA: 3.83 / 4.0.

## RESEARCH EXPERIENCE

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### NCTU VLSI Signal Processing Lab

Hsinchu, Taiwan

*Special Project on Electronics*

June 2018 – January 2019

- Supervised by professor Tian-Sheuan, Chang.
- Research in adaptive pruning for Convolution Neural Network on object recognition. It enables the CNN model to adapt to different run-time needs in a mobile environment. This research is sponsored by the ministry of science and technology in Taiwan (paper published on ISCAS 2019).

### NCTU Communication Electronics and Signal Processing Lab

Hsinchu, Taiwan

*Special Project on Electronics*

March 2019 – July 2020

- Supervised by professor Carrson C. Fung.
- Research in graph learning algorithm for received signal power interpolation problem, which is an essential technology for implementing preemptive resource allocation in location-aware communications. This research is sponsored by the ministry of science and technology in Taiwan (paper published on EUSIPCO 2020).

### USC Signal Transformation, Analysis and Compression Group

Los Angeles, CA, USA

*Research Collaboration Internship*

July 2019 – August 2019

- Collaborated with professor Antonio Ortega on the received signal power interpolation research.
- Evaluating and implementing multiple graph learning methods to design a novel graph-based estimation approach to solve the received signal power interpolation problem in location-aware communications.

### UIUC Coordinated Science Lab

Champaign, IL, USA

*Special Project on Electronics*

January 2020 – May 2020

- Supervised by professor Venugopal V. Veeravalli.
- Built a demo for the model change detection system on landmines dataset, which utilized machine learning algorithms to classify landmines data collected from different surface conditions.

**NCTU Artificial Intelligence and Multimedia Lab***Full-time Research Assistant***Hsinchu, Taiwan****July 2020 – Present**

- Worked on knowledge graph based explainable recommender system research with professor Wen-Huang, Cheng, aiming to generate accurate and explainable recommendations in various applications.
- Led a team in developing road hazard detection using Surveillance cameras to facilitate autonomous driving car systems to avoid traffic accidents.
- ACM MM 2020 paper reviewer.
- Assisting the arrangement of The 33rd IPPR Conference on Computer Vision, Graphics, And Image Processing (CVGIP 2020) in Taiwan.

**EXTRACURRICULAR ACTIVITIES**

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**IEEE Eta Kappa Nu, Mu Sigma Chapter***Recording Secretary***Hsinchu, Taiwan****May 2019 – May 2020**

- Communicated with staff in NCTU; invited foreign alumni to give a speech about school life and life in the U.S.; organized workshops.
- Participated in IEEE-HKN Student Leadership Conference 2019 in Boston.

**NCTU IEEE Student Bench***Finance and Secretary***Hsinchu, Taiwan****March 2019 – March 2020**

- Built a bridge between foreign alumni and students in NCTU, which provides a platform for NCTU students to get a piece of advice from foreign alumni.
- Coordinated the sharing activities and alumni speeches for students in NCTU.

**AIESEC in Taiwan***Incoming Global Community Development Program Manager***Hsinchu, Taiwan****March 2017 – July 2017**

- Organized tour around Taiwan with 8 college students from different countries.
- Organized international culture workshop for high school students in Hsinchu.
- Invited college students around the world to attend the volunteering job in rural schools for culture exchange and English lectures in Hsinchu, Taiwan.

**NCTU Department Table Tennis Team***Team Member***Hsinchu, Taiwan****June 2017 – June 2020**

- Win 1<sup>st</sup> place in an interscholastic match in 2019.

**SKILLS & INTERESTS**

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<b>Languages</b>	Fluent in Mandarin; Conversational Proficiency in English.
<b>Technical Skills</b>	MATLAB, C++, Python, Verilog, System Verilog, LaTeX.
<b>Interests</b>	Big Data, Machine Learning, Algorithm Design, Hardware Design.

**PUBLICATION**

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- [1] **Hong-Ming Chiu**, Kuan-Chih Lin and Tian Sheuan Chang, “Run Time Adaptive Network Slimming for Mobile Environments,” 2019 IEEE International Symposium on Circuits and Systems (ISCAS).
- [2] **Hong-Ming Chiu**, Carrson C. Fung and Antonio Ortega, “Graph Learning and Augmentation Based Interpolation of Signal Strength for Location-Aware Communications,” 2020 European Signal Processing Conference (EUSIPCO).