

Chen Hsieh (Benjamin) 謝晨

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EDUCATION

National Taiwan University

MSc, Horticultural Crops Science. GPA:4.17/4.30(Ranking:2/32), TOEFL:106. June 2019
BS, Agriculture June 2017

AWARDS AND HONORS

Government Fellowship for Studying Abroad.

Ministry of Education, Republic of China (Taiwan). January 2019

- Anticipated Funding Amount: \$ 150,000 USD
- Passed professional exams and interview hosted by government selected experts

First Prize, Graduate Student Research Poster Presentation Competition.

Dept. Hort. and L. Architect., National Taiwan University. June 2019

- **Hsieh, C.**, P.L. Huang, Y.Y. Do. 2019, June. *Genome-wide Identification and Analysis of MADS-box Gene Family in Bitter Melon. Poster presented at the Graduate Student Research Poster Presentation Competition, Taipei, Taiwan.*

Student Outstanding Performance Award.

National Taiwan University. December 2018

- Award Amount: \$ 90,000 NTD.

Outstanding University Youth of 2018-2019.

National Taiwan University. November 2018

- One of the 17 youth selected from 31,829 students in NTU

Second Prize, Graduate Student Research Poster Presentation Competition.

Dept. Hort. and L. Architect., National Taiwan University. June 2018

- **Hsieh, C.**, P.L. Huang, Y.Y. Do. 2018, June. *Comparative Transcriptome Analysis of Gibberellin-induced Sex Determination in Bitter Melon. Poster presented at the Graduate Student Research Poster Presentation Competition, Taipei, Taiwan.*

Social Welfare Scholarship. Known-You Seed CO., LTD.

May 2018

Quality Award, Open Data Innovative Application Contest.

Industrial Development Bureau, Ministry of Economic Affairs, ROC (Taiwan).

Council of Agriculture, Executive Yuan, Republic of China (Taiwan). December 2017

- Award Amount: \$ 410,000 NTD.
- Built a team with specialists of designing, programming and mass communication
- Developed the world's first Chinese chatbot aims to solve plant diseases and pests problems of customers, using open data supported by Council of Agriculture
- Accomplished business verification and pitched to venture capitalists

Council of Agriculture Enterprise Prize, HackNTU 2017 (Hackathon of NTU 2017).

National Taiwan University. August 2017

- Led the team and developed a chatbot helping small farmers to sell rest products

First Prize, Undergraduate Student Research Poster Presentation Competition.

Dept. Hort. and L. Architect., National Taiwan University.

June 2017

- **Hsieh, C.,** P.L. Huang, Y.Y. Do. 2017, June. *Heat and Drought Combined Stress-responsive Transcriptome Analysis of Heat-tolerant Wheat Shan Nong 23 During Grain-filling Stage. Poster presented at the Undergraduate Student Research Poster Presentation Competition, Taipei, Taiwan.*

Third Prize, Agrithon (Agriculture Hackathon).

Council of Agriculture, Executive Yuan, Republic of China (Taiwan).

August 2016

- Led the team and developed a social platform for rooftop gardening participants

Third Prize, Undergraduate Student Research Poster Presentation Competition.

Dept. Hort. and L. Architect., National Taiwan University.

June 2016

- **Hsieh, C.,** P.L. Huang, Y.Y. Do. 2016, June. *ACC Synthase gene family gene structure analysis and classification based on amino acid sequence in genomes of Musa acuminata and Musa Balbisiana. Poster presented at the Undergraduate Student Research Poster Presentation Competition, Taipei, Taiwan.*

RESEARCH EXPERIENCE

MSc Researcher

National Taiwan University

September 2017 - June 2019

- Designed and executed RNA-Sequencing experiments to find candidate genes of sex determination in bitter melon in the lab of Dr. Yi-Yin Do and Dr. Pung-Ling Huang
- Established data analysis pipeline with open source softwares on linux workstations
- Developed custom python scripts for cis-acting element data visualization
- Conducted quantitative real-time PCR for candidate gene expression validation
- Master's Thesis: Comparative Transcriptome Analysis of Gibberellin-induced Sex Determination in Bitter Melon (*Momordica charantia* L.)

Undergraduate Researcher

National Taiwan University

September 2016 - June 2017

- Learned RNA-Seq analysis in the lab of Dr. Yi-Yin Do and Dr. Pung-Ling Huang
- Studied plant response when subjected to drought and heat combined stress
- Analyzed transcriptomes of hexaploid wheat with KEGG and gene ontology usage

Summer Undergraduate Researcher

Institute of Molecular Biology, Academia Sinica

July 2016 - August 2016

- Studied nitrogen signal transduction in plant molecular biology lab of Dr. Yi-Fang Tsay
- Conducted genotyping and gene expression analysis of *Arabidopsis wrky* mutants
- Conducted yeast two hybrid and western analysis to determine relationships between candidate protein domains about nitrogen signal transduction in plants
- Presented results with poster to Academia Sinica researchers

Undergraduate Researcher

National Taiwan University

September 2015 - June 2016

- Learned sequence analysis in the lab of Dr. Yi-Yin Do and Dr. Pung-Ling Huang
- Utilized genomic data from banana genome hub and identified 22 ACS gene candidates

- Categorized ACSs from A and B banana genomes into 3 types with phylogenetic analysis

TEACHING & MENTORING EXPERIENCE

Guest lecturer

October 2019

Methods in Horticultural Research (IV) at *Dept. Hort. and L. Architect., NTU*.

- Interpreted technical material for non-technical audience about RNA-seq analysis
- Delivered introduction material on a daily basis for a week prior to the lecture through social media channel and attracted twice of the expected participants
- Launched a chatbot for supplementary material delivering

Undergraduate Mentor

September 2017 - June 2018

- Explained basic concept of bioinformatic approaches toward horticulture crops research
- Instructed usage of softwares, typesetting of poster, and presentation skills
- Helped undergraduate researcher achieved first prize in poster competition with the topic of genome-wide sequence analysis of *JAZ1* gene family in *Musa accuminata*

PUBLICATIONS AND PRESENTATIONS

Publications in preparation

- Chou, L.; Huang, S.-J.; **Hsieh, C.**; Lu, M.-T.; Song, C.-W.; Hsu, F.-C. A High Resolution Melting Analysis-Based Genotyping Toolkit for the Peach (*Prunus persica*) Chilling Requirement. *Int. J. Mol. Sci.* 2020, 21, 1543.
- **Hsieh, C.**, P.L. Huang, Y.Y. Do. Heat and drought combined stress-responsive transcriptome analysis in heat tolerant wheat Shan Nong 23 during the grain-filling stage. Manuscript in preparation.

Poster Presentations

- **Hsieh, C.**, P.L. Huang, Y.Y. Do. 2018, Aug. *Comparative Transcriptome Analysis of Gibberellin-induced Sex Determination in Bitter Melon*. Poster presented at the XXX. *International Horticultural Congress, Istanbul, Turkey*.

LEADERSHIP/TEAMWORK EXPERIENCE

Network Administrator

Department of Horticulture and Landscape Architecture, NTU

August 2017 - July 2019

- Maintained daily network service of 7 buildings belonged to Dept. Hort. and L. Architect.
- Mentored succeeding network administrator on hardware managing

Stage Technician

NTU Center for the Arts, National Taiwan University

July 2014 - June 2017

- Executed lighting and sound arrangements of stage according to the performance teams
- Collaborated with receptionists and photographers to accomplish missions

Head of Academic Activity Section

Public Address Team, National Taiwan University

July 2014 - June 2015

- Designed courses for two semesters to train new team members
- Negotiated with guest lecturers to insure delivery of essential information

COMMUNITY SERVICE AND OTHER ACTIVITIES

Content Creator

- Participated in the campaign called 'Continuous Writing for 30 Days' hosted by *IThelp*, one of the biggest information technology communities in Taiwan, and wrote 30 articles about introduction to bioinformatics, October, 2019
- Operating Facebook fan page 'RNA-Sick' and delivering scientific essays to public

Sand Sculpture Enthusiast

- Participated in the creation of new Guinness World Record for the most people making sand sculptures of bottlenose dolphins simultaneously, June, 2019
- Honorable Mention Award, Domestic Competition of Fulong International Sand Sculpture Art Festival, May 2016
- Honorable Mention Award, Domestic Competition of Fulong International Sand Sculpture Art Festival, May 2015

Volunteer, 2010 Taipei International Garden and Horticulture Exposition, ROC (Taiwan).