

Kuan-Hung (Peter) Yeh

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HEALTH DATA SCIENTIST

Data scientist passionate in **Precision Medicine** and **Statistical Genetics** pursuing M.S. in Biostatistics at UCLA. **3+** years of hands-on research experience working with domain experts in Biotech, National labs, Universities, and Hospitals. Turning data into actionable insights to improve public health & decision making.

Programming Languages & Toolkits: R (Markdown, Shiny), Python, Linux, SQL, Git/GitHub

Research Topics: Statistical Genetics, Survival Analysis, Precision Medicine, Machine Learning.

EDUCATION

University of California, Los Angeles (UCLA)

Los Angeles, CA

Master of Science in Biostatistics (Up-to-date GPA: **3.9/4.0**)

Jun. 2023 (Expected)

- **Selected Courses:** Mathematical Statistics, Causal Inference, Machine Learning

National Taiwan University (NTU)

Taipei, Taiwan

Bachelor of Science in Public Health (Overall GPA: **3.75/4.0**)

Jun. 2020

- **Honor Graduate** w/ Elite Scholarship & Dr. KP Chen Memorial Scholarship
- **Selected Courses:** Linear Algebra, Survival Analysis, Computational Biology, Epidemiology

RESEARCH EXPERIENCES

Department of Pathology and Laboratory Medicine, UCLA

Los Angeles, CA

Graduate Student Researcher, Advisor: Prof. Bogdan Pasaniuc

May. 2022 – Present

- Constructing a **disease risk prediction model** by combining polygenic score and electronic health record
- Developing a well-validated model included individual polygenic score uncertainty for risk stratification

Foundation Medicine, Inc. (Affiliate of Roche Group)

Boston, MA

Biostatistician Intern, Advisor: Dr. Chang Xu

Jun. 2022 – Sep. 2022

- Launched new acceptance criteria for reproducibility in diagnostic assay precision study to maximize statistical power while controlling type I error [\[Shiny App\]](#)
- Proposed new quality control (QC) criteria for new reagent in **FoundationOne® Liquid CDx** (F1LCDx) to minimize index hopping effect

Biostatistics & Bioinformatics Core lab, NTU

Taipei, Taiwan

Undergraduate Researcher, Advisor: Prof. Tzu-Pin Lu

Jun. 2019 – Feb. 2020

- Constructed the **First Prognostic Model** for Asian Colon Cancer Patients [\[ASO '21\]](#)
- Found the prognostic difference across ethnic ancestry and customized a Cox model in asian population
- Provided the robust overall **survival/risk prediction** to facilitate clinical shared decision making
 - **Best Research Poster Award** in Research Symposium, NTUPH [\[Poster\]](#)

Taichung Veteran General Hospital

Taichung, Taiwan

Summer Research Intern, Advisor: Dr. Tzu-Hung Hsiao

Jun. 2019 – Sep. 2019

- Found **Novel Genetics Locus** on metabolic syndrome using GWAS
- Analyzed and combined phenotype and genotype data to quantify the risk of metabolic syndrome
 - **Published** and **Oral Presented** at 2020 IEEE BIBM [\[Video\]](#)

PUBLICATIONS

1. Han-Ching Chan, Chi-Cheng Huang, Ching-Chieh Huang, Amrita Chattopadhyay, **Kuan-Hung Yeh**, Wen-Chung Lee, Chun-Ju Chiang, Skye Hung-Chun Cheng, Tzu-Pin Lu, [“Predicting Colon Cancer-Specific Survival for the Asian Population Using National Cancer Registry Data from Taiwan”](#) In *Annals of Surgical Oncology* 2021.
2. **Kuan-Hung Yeh**, Ching-Heng Lin, Tzu-Hung Hsiao and Tzu-Pin Lu, [“Genome-Wide Association Study \(GWAS\) on Metabolic Syndrome in Subjects with Abdominal Obesity in a Taiwanese Population”](#) In *2020 IEEE International Conference on Bioinformatics and Biomedicine (2020 IEEE BIBM)*.
3. **Kuan-Hung Yeh**, Tzu-Pin Lu, [“Using National Cancer Registry Data to Develop Prediction Model for Colon Cancer in Taiwan”](#) In *2019 Taiwan Public Health Joint Annual Conference*.

SELECTED PROJECTS

2018 TMU x MIT (Sana) HIOT Hackathon

Taipei, Taiwan

1st Prize with \$3,000 USD [\[News Link\]](#)

Oct. 2018

- A Hackathon organized by **Taipei Medical University** and Computer Science and Artificial Intelligence Laboratory (CSAIL), **Massachusetts Institute of Technology**
- Proposed an Ultrasound Assisting System based on CNN for **Real-time auto examination of Internal Hemorrhage** in ICU with a **93%** accuracy rate

2018 Hack x Heart

Taipei, Taiwan

Top 12 Finalist (out of 60 teams)

Sep. 2018

- A Hackathon organized by **Taiwan Heart Foundation** and **Ministry of Science and Technology**
- Built an **App** to increase medication adherence among patient with acute coronary syndrome
- Won **Innovation Award** from Xin Chen Medical Research Foundation & School of Pharmacy, NTU

Academia Sinica ("National Academy of Sciences" in TAIWAN)

Taipei, Taiwan

Summer Research Intern, Advisor: [Dr. Da-Wei Wang](#)

Jun. 2018 – Sep. 2018

- Applied **Random Forest, SVM, and Neural Network** on National Health Insurance data
- Predicted insurance deductibles on Ophthalmology with 83% accuracy [\[Github Link\]](#)

HONORS & AWARDS

Honor Graduate, Public Health Dept. at NTU

Jun '20

Elite Scholarship, Elite-Well Education Foundation

Fall '19

Dr. KP Chen Memorial Scholarship

Spring '19

- Dr. KP Chen is the **Father of Public Health in Taiwan**, whose most well-known contribution is to clarify the causality between Blackfoot disease and Arsenicosis
- Dr. KP Chen Memorial Scholarship is one of the **Highest Award for Public Health Undergraduates in TAIWAN**

Innovation Award, Pharmacy School at NTU

Sep '18

Dr. Jiang Jian Memorial Scholarship, Public Health Dept. at NTU

Fall '18

Best Research Poster Award, NTUPH Annual Research Symposium

Fall '18