

# Kuan-Hung (Peter) Yeh

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🏠 peterntuph.github.io | 📄 kuan-hung yeh | 📄 Google Scholar

## 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 **survival data simulation pipeline** based on different hazard assumption
- 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 a 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 [\[ASO '21\]](#)
- Reported the prognostic difference across different ancestry and customized a Cox model in asian population
- Provided a robust overall **survival/risk prediction** to facilitate clinical shared decision making [\[Web\]](#)
  - 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 from genome-wide association study (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 & PRESENTATIONS

- 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, (2021) [“Predicting Colon Cancer-Specific Survival for the Asian Population Using National Cancer Registry Data from Taiwan”](#). *Annals of Surgical Oncology* 29:853–863
- 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”](#) Oral presentation at 2020 IEEE International Conference on Bioinformatics and Biomedicine (2020 IEEE BIBM).
- Kuan-Hung Yeh**, Tzu-Pin Lu, [“Using National Cancer Registry Data to Develop Prediction Model for Colon Cancer in Taiwan”](#) Poster presentation at 2019 Taiwan Public Health Joint Annual Conference.

## HONORS & AWARDS

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**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*

## SELECTED PROJECTS

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**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 [\[Github Link\]](#)

## PROFESSIONAL ASSOCIATIONS

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**American Society of Human Genetics (ASHG)**

**American Statistical Association (ASA)**

**Taiwan Public Health Association (TPHA)**