Kuan-Hung (Peter) Yeh

(707)727-5012 | ✉ khyeh0816@g.ucla.edu

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

HEALTH DATA SCIENTIST

Data scientist passionates 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 o**f **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*