Kuan-Hung (Peter) Yeh

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Biostatistician and Real-World Data Scientist with 4+ years of expertise in statistical modeling and machine learning using claims and EHR datasets. Passionate about leveraging real-world evidence to support clinical decision-making and transform diagnostics and treatment through data-driven innovation.

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

Research Topics: Real-World Evidence (RWE), Causal Inference, Survival Analysis, Clinical Trials

Education

University of California, San Diego

San Diego, CA

Ph.D in Biomedical Informatics (Overall GPA: 4.0/4.0)

Sep. 2023 – Present

University of California, Los Angeles

Los Angeles, CA

Master of Science in Biostatistics (Overall GPA: 3.93/4.0)

Taipei, Taiwan

Bachelor of Science in Public Health, Biostatistics Track (Overall GPA: 3.75/4.0)

Jun. 2020

Jun. 2023

Experience

Graduate Researcher

National Taiwan University

Jan. 2024 – Present

Department of Biomedical Informatics, UCSD Health

La Jolla, CA

- Collaborated with multiple clinical teams to design and conduct research studies, communicating scientific findings effectively and proactively solving problems to inform treatment safety and efficacy.
- Generated **real-world evidence** in Gastroenterology using **Optum** claims datasets, enhancing treatment strategy evaluation through advanced survival analysis, multiple imputation, and propensity score methods.

Biostatistician Intern

Jun. 2022 – Sep. 2022

Foundation Medicine. Inc.

Boston, MA

- Contributed to the development of statistical software tools, including **R** function and Shiny Apps [Demo].
- Developed new criteria using simulation for diagnostic assay precision studies, boosting statistical power by 90%.
- Conducted **statistical analyses** (e.g., sample size, power, precision) to ensure quality assurance for new reagent design in FoundationOne Liquid CDx.

Graduate Consultant

May. 2022 – Jun. 2023

Department of Computational Medicine & Medicine Statistics, UCLA

Los Angeles, CA

- Performed mediation analyses and data visualizations for a three-arm randomized controlled trial
- Developed a survival data **simulation pipeline** to estimate how genetic architecture impacts in survival modeling and polygenic risk score stratification.

Undergraduate Researcher

 $Jun.\ 2019-Feb.\ 2020$

Biostatistics & Bioinformatics Core lab, NTU

Taipei, Taiwan

- Developed the first Asian colon cancer prognostic model using Taiwan Cancer Registry and US-based SEER data.
- Provided a robust overall **survival/risk prediction** to facilitate clinical shared decision-making [Web].

Selected Publications

- Ahuja, D., Yeh, K. H., Patel, S. B., Lee, H. H., Goodwin, S. W., Solitano, V., Ma, C., Ananthakrishnan, A. N., Singh, N., Jairath, V., Xu, R., & Singh, S. (2025). Comparative Safety of Janus Kinase Inhibitors vs Tumor Necrosis Factor Antagonists in Patients With Inflammatory Bowel Diseases. *Clinical Gastroenterology and Hepatology*, ISSN 1542-3565. https://doi.org/10.1016/j.cgh.2025.06.041.
- Haynesworth, A., Yeh, K. H., Lee, H. H., Kirkpatrick, M., Boland, B. S., Syal, G., Xu, R., & Singh, S. (2025). Long-Term Outcomes of an Infliximab-First Versus Vedolizumab-First Treatment Strategy in Biologic-Naïve Patients With Ulcerative Colitis. *Alimentary Pharmacology & Therapeutics*, 61(4), 693–701. https://doi.org/10.1111/apt.18441
- Chan, H. C., Huang, C. C., Huang, C. C., Chattopadhyay, A., Yeh, K. H., Lee, W. C., Chiang, C. J., Lee, H. Y., Cheng, S. H., & Lu, T. P. (2022). Predicting Colon Cancer-Specific Survival for the Asian Population Using National Cancer Registry Data from Taiwan. Annals of Surgical Oncology, 29(2), 853–863. https://doi.org/10.1245/s10434-021-10646-2