YINGYING YU

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EDUCATION

Johns Hopkins University, Bloomberg School of Public Health *Seq 2022 – May. 2024 (Expected)*
Master of Health Science in Epidemiology, Cancer track *Current* GPA: 4.0/4.0

New York University, College of Arts and Science *Seq. 2018 – Jan. 2022*
Bachelor of Arts in Biology, magna cum laude GPA: 3.87/4.00

SKILLS

- **Data analysis**: R (*tidyverse, DESeq2, edgeR, ASpli, Shiny,..*), Python (*pandas, numpy, sklearn, matplotlib,..*), Stata, SAS
- **Data management**: SQL, Excel (vlookup, Power Query), version control (GitHub), Redcap

RELATED EXPERIENCE

Department of Epidemiology, Johns Hopkins University Baltimore, Maryland
Research assistant for Prof. Kala Visvanathan *Aug. 2023 – Present*

- Conducted an in-depth analysis of the effects of breastfeeding on breast cancer mortality and recurrence by leveraging data from the Breast and Ovarian Surveillance Service (BOSS) Cohort and Maryland state registries.
- Executed comprehensive descriptive analyses to delineate baseline characteristics of participants in relation to the duration of breastfeeding in months, utilizing R programming with proficiency in the 'tidyverse' and 'table1' packages.
- Developing survival analysis by applying Cox proportional hazards regression models to estimate hazard ratios.

National Cancer Institute, NIH Bethesda, Maryland
Bioinformatics analyst for Dr. Rouf Banday *Jun. 2023 – Present*

- Directed a detailed genome-wide analysis of bladder cancer cells, uncovering 30 new isoforms in interferon-treated samples.
- Pioneered an RNA-Seq analysis pipeline to investigate unique alternative splicing patterns in cancer cells, utilizing R (DESeq2, edgeR, and ASpli), software IGV, and Linux software (Samtools, STAR, spliceV, and Enrichr).
- Showcased research outcomes at NIH Summer Poster Day and am currently extending the pipeline's application to larger datasets and additional cancers, including breast cancer, colorectal cancer, pancreatic cancer, and leukemia.

BGI group Shenzhen, China
Business development intern *Feb. 2022 – Jun. 2022*

- Coordinated the Million Microbiome from Human Project (MMHP). Proactively identified and reached out to 50 potential collaborators focusing on microbiome research within the European academic community.
- Assumed responsibility for collecting, analyzing, and summarizing 23 national genome projects in major Europe, with a focus on those participating in the European '1+ Million Genomes' Initiative (1+MG). Synthesized 23 reports for review.
- Executed a comparative analysis of major In-vitro diagnostics distributors in the Europe market by collecting product information, marketing tactics, and collaborations. Presented detailed findings to the senior team members.

New York University Shanghai Shanghai, China
Research assistant for Prof. Jungseog Kang *Aug. 2021 – Dec. 2021*

- Engineered plasmids featuring target inserts of five distinct histone H2A.FV truncations and designed specific primers.
- Investigated the potential interaction mode between histone H2A.FV and the chromosomal segregation-related protein INCENP by utilizing the technique of Co-Immunoprecipitation (CoIP) in HeLa cell lines for analysis.
- Conducted over-expression experiments on wild-type H2A.FV and three mutant variants, and compared mitotic defects by immunofluorescence and micronuclei counting to quantify differences in cellular response.

Shanghai Luming Biological Technology Shanghai, China
Bioinformatics analyst intern *Feb. 2021 – Jun. 2021*

- Processed raw liquid chromatography–mass spectrometry (LCMS) and gas chromatography–mass spectrometry (GCMS) data using Progenesis QI for baseline filtering, peak identification, integration, and normalization for more than 50 samples.
- Analyzed processed data for potential marker metabolites by quality control analysis, principle component analysis, fold change analysis, differential metabolite screening, correlation analysis, and pathway enrichment analysis using R.
- Generated 122 analysis reports using Rmarkdown. Translated 6 different analysis report templates from Chinese to English.