

Gaotong (Gloria) Liu

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EDUCATION

Columbia University, Mailman School of Public Health

New York, NY

Master of Science (MS) in Biostatistics, (Theory and Methods track), Cumulative GPA: 4.1

Expected May 2021

- Related courses: Data Science(A), Biostatistical Methods(A+), SQL

The University of Hong Kong, Visiting Program

Hong Kong

- Related courses: Marketing analytics, Statistical inference and Python programming

Sep - Dec 2018

The Hong Kong Polytechnic University

Hong Kong

Bachelor of Science (BS) in Applied Biology with Biotechnology, GPA: 3.94/4.0

Sep 2014 - May 2018

- First Class Honors

The University of Queensland, Exchange Program

Brisbane, Australia

- Related courses: Genomics & Bioinformatics and Biostatistics

Jan - Jun 2017

RELEVANT RESEARCH EXPERIENCE

Columbia University, [COVID-19 DSCovR Dashboard](#)

New York, NY

Research Assistant, Dr. Shing Lee's supervision

May-Sep 2020

- Collaborated on design and launch 5 sections of COVID-19 Rshiny data visualization tool provided to 200 users max per day to visualize and compare time trends and demographic information across states in the United States
- Participated in data collection, data scraping, data cleaning and data quality check from 52 individual state department of health website
- Successfully designed and developed 51 state demographics visualizations and created policy timeline visualizations for around 1000 policies
- Successfully applied meta-analysis random effect model to analyze 8 types of comorbidity data for COVID-19 case and death and preparing for the manuscript on comorbidity and COVID-19 case and death

The University of Hong Kong

Hong Kong

Market Research Assistant, Dr. Kwan CW's supervision, STAT 3613 Marketing analytics

Sep - Dec 2018

- Successfully applied multidimensional scaling, marketing response model and correspondence analysis to the survey data to predict product market size, and profit

Shenzhen Institutes of Advanced Technology, CAS

Shenzhen, China

Research Intern, Dr. Yin Peng's group, Research Center for Biomedical Information Technology

Aug 2018

- Effectively analyzed gene expression data by differential expression analysis and GO, KEGG enrichment analysis using R packages to investigate the effectiveness of a drug
- Studied R, Python programming and various algorithms applied to GWAS, TWAS

The Hong Kong Polytechnic University, Department of Applied Biology and Chemical Technology

Hong Kong

Final Year Student/Student Assistant, Prof. Wong Man sau's group

Feb 2016 - May 2018

- Efficiently used bioinformatical tool based on R to analyze RNA-sequencing data, mainly using differential and enrichment analysis and narrowed down to 20 targets for research of Icariin's effect on osteoporosis
- Investigated molecular mechanisms of the Icariin's effect on apoptosis and cell proliferation of osteoblast using techniques such as flow cytometry, Real-time PCR, cell culture (MC3T3-E1), MTS assay, Western Blot

PROFESSIONAL EXPERIENCE

Shanghai Institute for Biological Sciences, CAS

Shanghai, China

Research Intern, Prof. Hu Ronggui's group, Institute of Biochemistry and Cell Biology

Jun-Aug 2016/Jul-Aug 2017

- Obtained the chemicals which can influence E3 ubiquitin-protein ligase in the retinoic acid signal transduction with a statistical significance, using immunoblotting, immunoprecipitation and DNA cloning
- Accurately followed research protocols and conducted high-throughput screening of chemicals on retinoic acid signal transduction by the dual-luciferase reporter assay

SKILLS

Languages: Native in Mandarin, Elementary in Japanese, Basic in Cantonese

Computer Skills: Proficient in Microsoft Office (Word, Excel and PowerPoint), and R, advanced knowledge of RShiny, also knowledge of Python, SQL, SAS and Machine Learning