

CLIFF LUN

Cell: 347.654.4199 • Email: cliffun@gmail.com Portfolio: <https://cliffun.github.io>

Skills

Technical: Python, R, Bash, Matlab, Perl, SQL, noSQL, git

Bioinformatics: Bowtie2, Salmon, STAR, samtools, bedtools, bcftools, GATK, MACS2, Bioconductor, DESeq2

Neuroimaging: FSL, FreeSurfer, CONN, BrainVoyager, TrackVis, Mango, FreeView, DSI studio

Language: English, Cantonese, Mandarin, Spanish

Professional Experience

Icahn School of Medicine at Mount Sinai, New York City, NY

September 2018 – Present

Associate Researcher II, BioMedical Engineering and Imaging Institute

- Lead analytics and data visualization for 15 NIH-sponsored neuroimaging projects spanning PTSD, anesthesia, environmental exposure, and trauma-driven vascular inflammation
- Implement and improve image processing pipelines for the analysis, visualization, and archival of high-dimensional MRI data using CLI
- Drive efficiencies in analytics and reporting infrastructure through automation; write custom scripts in Python and Bash to accelerate data transformation
- Collected MR imaging and micro-CT imaging data across humans and rodents
- Select findings:
 - Identified that general anesthesia induces transient microstructural changes in the white matter of the brain
 - Determined that World Trade Centre responders correlated to reduced cortical thickness in the entorhinal and temporal cortices

Christopher Unger, M.D. Physician's Office, McLean, VA

April 2018 – June 2018

Shadow

- Assisted with phlebotomy, 12-lead EKGs, recording vital signs, physical examinations

Research Experience

Cancer Biotherapy Institute of Jiangsu, Xuzhou Medical University, Xuzhou, China July 2016 – August 2016

Research Assistant, Supervisor: Prof Yao Hong

- Determined the gene expression level of CCDC30 gene in cisplatin-induced HepG2 cell by qPCR and Western Blots assays
- Verified the interaction between HGFK1 and Met receptor in HepG2 cells by Co-immunoprecipitation assay
- Aggregated research data to generate insights about circle RNA as a driver of cancer development

Publications

Jian Zhang, Huizhong Li, Dazhi Gao, Baofu Zhang, Maojin Zheng, **Mingyin Lun**, Mengxue Wei, Rui Duan, Maomao Guo, Jiajun Hua, Qian Liu, Jin Bai, Hui Liu, Junnian Zheng & Hong Yao (2018) **A prognosis and impact factor analysis of DC-CIK cell therapy for patients with hepatocellular carcinoma undergoing postoperative TACE**, Cancer Biology & Therapy, DOI: 10.1080/15384047.2018.1433501

Tang CY, Wang VX, **Lun MY**, Mincer JS, Ng JC, Brallier JW, et al. (2021) **Transient changes in white matter microstructure during general anesthesia**. PLoS ONE 16(3): e0247678. <https://doi.org/10.1371/journal.pone.0247678>

Education

Johns Hopkins University, Baltimore, Maryland

August 2023

Prospective **Master of Science**; Major in Bioinformatics

- GPA: 4.00 / 4.00

Georgetown University, Washington, D.C.

July 2018

Master of Science; Majors in Physiology and Biophysics

- GPA: 3.91 / 4.00

The University of Hong Kong, Hong Kong

June 2017

Bachelor of Science; Majors in Biochemistry and Molecular Biology & Biotechnology