

HUILIN TAI

■ Montreal, Canada

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SKILLS

- **Programming:** Python, Java, R language, Javascript, C/C++, Bash/Shell, MIPS assembly, Matlab
- **Others:** Linux, circuit design, HTML/CSS, Sketchup, auto-CAD, technical drawing

EDUCATION

McGill University, Montreal, QC, Canada

Sep. 2020 - present

Bachelor of Science - Major statistics and computer science GPA 3.8

- Relevant coursework: Analysis, Probability, Statistics, Number Theory, Euclidean Geometry, Biostatistics, Algorithm and Data Structures, Software Systems, Computer System, Computation Theory, Operating Systems, Database Systems, Data Science, Compiler Design, Artificial Intelligence

WORK & RESEARCH EXPERIENCE

McGill University-Faculty of Medicine and Health Science

Jan. 2023 - present

Research Assistant

- Decoding cell dynamics with machine learning methods on single-cell genomics.

McGill University-Faculty of Science

Nov. 2022 - present

Undergraduate Researcher

- Build and investigate a hypothesis model to study the effect of geometry factors on T cell activation.
- Explore if multiscale models can produce jumps between IFN γ dose-response curves generated by T cells upon NP stimulation when the valence of pMHC (total number of pMHCs on NPs) is changed modestly for a given NP size.

McGill University-Faculty of Science

Sep. 2022 - Dec. 2022

Undergraduate course assistant

- Grade assignments for course Math235.

Harbin Institute of Technology

June. 2022 - Sep. 2022

Research Assistant

- Processed transportation data and population data from questionnaires through Python programming.
- Built models and formed visualizations for 5 designing hypotheses, and implemented a tester for minor adjustments.
- Provided justifications to strengthen particular arrangements and testified system efficiency with data.

Harbin Medical University

Biostatistics Research Assistant & co-author

May. 2022 - July. 2022

- Developed survival analysis to estimate if targeting uridine-cytidine kinase 2 could improve the immune response of hepatocellular carcinoma. Implemented an interactive monogram with R language for 1-year, 3-year, and 5-year survival analyst.
- Collected real time data, performed statistical and predictive analysis, created visualizations, and communicated actionable results to the team. Reduced nonstandard data collection and eliminated bias by cleaning the database.

Harbin Medical University Affiliated 2nd Hospital

Jan. 2022 - May .2022

Research Assistant

- Launched a GSEA analysis, processed data with different tumor risk levels to analyze the enrichment of KEGG and Hallmark pathways. Identified pathways in the order of Normal-TumorLR-Tumor-HR according to the enrichment output.
- Participated in developing diagnosing redirection websites with JavaScript and HTML .

Yooden Technology

Data analyst

Aug. 2020 - Jan. 2021

- Provided 5 trusted advice about changing issues in contracts to help both sides avoid risks.
- Collaborated with the IT department on the mechanical component consumption and market demand analysis.

LEADERSHIP AND EXTRACURRICULAR

McGill University-Faculty of Science

Jan. 2023 - present

Researching Mentee(McGill DRP program)

- Learned about machine learning application in causal inference.

Simplify McGill

Finance department member

2019 - 2020

- Learned to write monthly income reports and participated in addressing speeches for coworkers.
- Administered the club budget to allocate directly to 5 departments, and led 3 activities sponsored by enterprises.