Houlin Chen

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EDUCATION

University of Toronto
Honours Bachelor of Science, *Double Majors in Mathematics and Statistics*　　　*Fall 2020 – Winter 2024*

Mathematics: Groups and Symmetries, Complex Variables, and Nonlinear Optimization.
Statistics: Methods of Data Analysis I, Methods for Multivariate Data, and Applied Bayesian Statistics.

Renmin University of China and **Nankai University**
Visiting Student　　　*Summer 2021*

RESEARCH EXPERIENCE

University of Toronto　　　Toronto, ON, CA
Machine Learning Project, *Undergraduate Research Assistant*　　　*Summer 2022*

- Established a 3D indoor positioning system based on a radio frequency sensor capturing small-scale fading and Gaussian process regression [1].
- Developed a dynamic data driven application system based on signals of opportunity with Dirichlet process clustering and ensemble learning [2].

Renmin University of China and **Nankai University**　　　Beijing and Tianjin, CN
Sociology Research Project, *Undergraduate Research Assistant*　　　*Summer 2021*

- Discussed with university professors and students in different countries on love, marriage, and sexuality, and higher education or health.
- Summarized 3 journals about what was learned from lectures, including the Agrarian Reform, Family Planning, and growth of underground gay organizations in China.
- Wrote a research essay entitled RESEARCH AND SOLUTION OF VIOLENT LAW ENFORCEMENT OF URBAN MANAGEMENT.

INTERNSHIP

AP Lazer　　　Windsor, ON, CA
Marketing Data Analysis　　　*Sept 2022 – Present*

- Running paid search and paid social media ad reports, calculating ROI, and making summary and comparison tables.
- Analyzing the effectiveness of each campaign, ad group, and ad.
- Combining the static information from the CRM program to provide a focused and simplified data table for the marketing team to improve the ads.

PUBLICATION

[1]　L. Yuan, **H. Chen**, R. Ewing, and J. Li, "Passive Radio Frequency-based 3D Indoor Positioning System Via Ensemble Learning," *Dynamic Data Driven Applications Systems (DDDAS) 2022, arXiv:2304.06513*, Oct. 2022. (Oral Presentation, Book Chapter).

[2]　L. Yuan, **H. Chen**, R. Ewing, E. Blasch, and J. Li, "Three Dimensional Indoor Positioning Based on Passive Radio Frequency Signal Strength Distribution," *IEEE Internet of Things Journal*, vol. 10, no. 15, pp. 13 933–13 944, Mar. 2023.

ACADEMIC SERVICE

Journal Reviewer
IEEE Access　　　May 2023 – Present

AWARD

University of Toronto Entrance Scholarship　　　Fall 2020

SKILL

Tools	R Studio, Python, Matlab
Languages	MarkDown, LaTeX, Overleaf
Communication	Chinese (native), English (IELTS: 7.0, GRE: 332)