# Houlin Chen

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#### Education

Fall 2020 Honours Bachelor of Science, Double Majors in Mathematics and Statistics, –Winter 2024 UNIVERSITY OF TORONTO, Toronto, ON, Canada

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

## Experience

#### Internships

Fall 2022 Marketing Data Analysis, Employee, AP LAZER, Windsor, ON, Canada

Proactively managed and optimized advertising budget by analyzing sales reports, taking initiative to increase revenue, and directly liaised with CEO for strategic decision-making.

#### **Projects**

Summer 2022 **Machine Learning Project**, *Undergraduate Research Assistant, UNIVERSITY OF TORONTO*, Toronto, ON, Canada

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].

Summer 2021 **Summer Aboard Program, Social Research**, *Vice President, RENMIN UNIVER-SITY OF CHINA, and NANKAI UNIVERSITY*, Beijing and Tianjin, China

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."

### **Publications**

- [1] L. Yuan, **H. Chen**, R. Ewing, E. Blasch, J. Li, "Three Dimensional Indoor Positioning Based on Passive Radio Frequency Signal Strength Distribution," *IEEE Internet of Things Journal*, Mar. 2023. DOI: 10.1109/JIOT.2023.3263476.
- [2] L. Yuan, H. Chen, R. Ewing, and J. Li, "Passive Radio Frequency-based 3D Indoor Positioning System Via Ensemble Learning," In *DDDAS 2022*, Oct. 2022. arXiv preprint arXiv:2304.06513.

### **Academic Services**

Journal IEEE Access Review

## Skills

R Studio, Python, LaTeX, Microsoft Office, Adobe Acrobat, Overleaf.

## Languages

Chinese First language.

English Second language; IELTS overall score: 6.5.