# Zihui Weng

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Expected Jun. 2023

#### **EDUCATION**

#### Chinese Name 翁子辉

Sun Yat-sen University, Guangdong, China

Bachelor of Science in Statistics, School of Mathematics (09.2019-06.2023);

(Expected) Master of Computer Science, School of Computer Science and Engineering

GPA: 3.95/4.0 (Rank: 12/67 ,Top 18%) Relevant Coursework: Statistical Computing(4.0/4.0), Time Series Analysis(4.0/4.0), Numerical Analysis(4.0/4.0), OOP(4.0/4.0), Data Structure and Algorithms(4.0/4.0), Database Principles and Applications(4.0/4.0), Discrete Mathematics(4.0/4.0), Nonparametric Statistics and Statistical Machine Learning(4.0/4.0).

#### **NOTABLE ACHIEVEMENTS**

- Oct. 2023 SYSU Third Prize Outstanding Student Scholarship (Top15%)
- May. 2022 Honorable Mention, The 2022 Interdisciplinary/Mathematical Contest in Modeling
- Oct. 2021 1<sup>st</sup> Prize, Contemporary Undergraduate Mathematical Contest in Modeling
- Oct. 2021 SYSU Second Prize Outstanding Student Scholarship (Top10%)
- Oct. 2020 SYSU Second Prize Outstanding Student Scholarship (Top10%) •

#### **PROJECT & RESEARCH EXPERIENCE**

Research: Causal Inference, Decision and Reasoning Project, SYSU Human Cyber Physical Intelligence Integration Dec.2021 - Dec.2022 Lab

Advisor: Prof. Liang Lin and his PhD student Ziliang Chen, One-on-one mentoring.

- Weekly meeting and summary about theory of causal inference especially transportability; Keynote speaker in the weekly meetings about recommender system.
- Delved into the estimation of identifiable causal effects by statistical techniques theoretically as well as the application of the Double Machine Learning.
- Conduct experiments and extensions of an ICML 2020 paper 'Continuously Indexed Domain Adaptation'.
- Used causal inference method (RDD, etc) to cope with the discontinuous indexed domain adaptation situations.

### **Research: Empirical Bayes in Recommender System, Department of Mathematics of HKUST**

## Advisor: Prof. Yuan YAO(HKUST) and Dr. Ruohan ZHAN(Stanford)

- Survey of Empirical Bayes and its extensions towards Multi-Armed Bandits, Meta-Learning, Bayesian Linear Probit Model(TrueSkill). Deliver one-hour speech of Empirical Bayes towards mentors.
- Accomplished code reproduction and dataset preprocess of an Management Science paper (Bayesian Meta-Prior Learning Using Empirical Bayes) with R.
- Github repo: https://github.com/Forshining/Empirical-Bayes

## **Project: Time Series Analysis of Weather Dataset and Forecasting**

(Course Project of Time Series Analysis)

Advisor: Prof. Hui HUANG; Leader of team of 3 students

- Responsible for data preprocessing and analysis, model constructions.
- Through series of hypothesis tests and select the best model to forecast the weather in the future, including traditional and advanced time series approches.
- Github repo: https://github.com/Forshining/Time-Series-Midterm •

## **SKILLS**

- Languages: Intermediate in English (CET4: 596\ CET6: 569\IELTS:7.0); Native in Chinese .
- Programming Languages: C++, Python(Proficient), R(Proficient), Julia, Matlab
- Database Systems: Oracle
- Deep Learning Experience: Pytorch
- Other Professional Tools: Git (Github:https://github.com/Forshining)
- Interests: Basketball, Calligraphy, Japanese, Photography •

May.2022 - Jun.2022

July.2022-Aug.2022