SIQI ZHENG

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102 Bloor St W
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EDUCATION

B.Sc. **Victoria College, University of Toronto** Sept 2018 - May 2022
Applied Statistics Specialist, focus on Physics
Mathematics Minor
GPA: 3.76/4.00
Dean's List Scholar (2018-2020)

PUBLICATIONS

Journal Publications

Siqi Z. (2021). From Mass-Dependence Model to Acoustic Mechanism: Two Mechanisms for Core-Collapse Supernova and Their Implications. Arbor Journal of Undergraduate Research, Volume 2.
https://issuu.com/arbor.assu/docs/arbor_journal_2021_

Journal Papers in Progress

Siqi, Z. Replication of a Paper on Education. Submitted to: Name of Journal.

RESEARCH INTEREST

Research: Interdisciplinary research in Bayesian statistics; Bayesian statistics in Education; Long-term implications of statistical models in academia and industry; Bayesian modeling in thermal dynamics.

Teaching: R programming for statistics; Bayesian statistics.

RESEARCH EXPERIENCE

Researcher, University of Toronto 2021
Advisor: Professor Rohan Alexander

- Investigated the
- Skill/Accomplishment/Project

Interdisciplinary Research Project Leader 2020 to 2021
Department of Statistical Science, University of Toronto

- Piloted data science projects by recruiting undergraduate students from various areas. A typical project finished within 2 weeks.

- Social science: Led a group of 3 researchers in Economics to analyze the salary/promotion data of 600 employees in a software company and provided constructive feedbacks gender pay gap and promotion gap in the company.
- Political science: Forecasted 2020 election results in US with Multilevel Regression with Post-stratification on demographic information based on census data of the whole population; successfully predicted that Joe Biden would win the election.
- Physics: Investigated the effects of inductance, capacitance and resistance on voltage with differential equations and non-linear models. (Received 98/100)
- Biology: Examined two Bayesian exponential models about the dynamics of a Chalmydia infection with predictive check and cross validation. (Received 18/20)

TEACHING EXPERIENCE

Post-secondary teaching experience

Teaching Assistant Sept 2020 to May 2021

Department of Statistical Science, University of Toronto, Toronto

- TA for An Introduction to Statistical Reasoning and Data Science (STA130), an undergraduate course of 500 students per semester, in both fall and winter.
- Conducted one-hour tutorial per week (12 weeks per semester) for 24 students covering the following topics: descriptive statistics and programming with R, linear regression, hypothesis testing, decision trees, linear regression.
- Launched and evaluated two projects for students: 1. Identify patterns of usage of facilities in Royal Canadian Yacht Club (fall term); 2. Voter opinions about their party and party leader, with a focus on voter demographics in Canada (winter term).
- Hosted office hours and managed online discussion form for the whole class.
- Marked 24 students' weekly assignments and tests.
- Hired as a returning TA in winter 2022.

Additional teaching experience

Teacher Sept 2018 to May 2019

Clinton Street Junior Public School, Toronto

- Taught science, mathematics to students from K to 6.
- Facilitated activities for students with special education.
- Certificated of excellence by Vic Reach Program, University of Toronto.

LEADERSHIP AND MENTORSHIP EXPERIENCE

Group Leader, Case Competition July 2021

Independent Summer Statistics Community, University of Toronto

- Lead a group of 3 to study the livability of Toronto by Bayesian Models, Time Series Analysis and Meta-Analysis of housing price in Toronto
- Honorable mention for Best Insight Award among 16 teams

INDUSTRIAL EXPERIENCE

Data Analyst Intern May 2021 to August 2021
Social Media Department, Foshan TV Station, Guangdong

- Managed a public account on Wechat subscription for information about local educational policies and school selections, with over 10k followers.
- Generated business insights from the number of views (2K ~ 1M) of different education-related articles/short videos and the number of active users and new subscribers of the organization's social accounts and TikTok, resulting in 1k increase in number of followers

COMPUTER SKILLS

Programming: R – 4 years; Python – 4 years; SQL – 2 years.

Platforms: GitHub – 3years.

HONORS AND AWARDS

The John A Sawyer Scholarship 2020
In-course scholarship for excellent performance in science.

The Roy Alvin Hope Scholarship 2019
In-course scholarship for excellent performance in science.

LANGUAGES

Chinese and Cantonese: Native Language.

English: Distinguished Listener, Speaker, Reader and Superior Writer.