

Wai Yu Amanda Ng

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HIGHLIGHT OF SKILLS

- IT skills: Programming languages (R, Python, SQL), Mapping software (QGIS), Microsoft Office software
- Languages: English, Cantonese, Mandarin
- Experienced in working as a team with high reliability and self-motivation. Strong problem-solving skills and attentive to details.
- Proven leadership credentials demonstrated by key roles in various student positions
- GitHub page: <https://github.com/amanda-ng518/Amanda-Ng-GitHub-page.git>

EDUCATION

University of Toronto (2021-2025 expected)

Specialist in Statistics (Method and Practice) with Focus in Health Studies and Major in Mathematics

CGPA of 3.90/4.00 (as of January 2024)

Dean's list scholar (21-22, 22-23)

RELEVANT PROFESSIONAL EXPERIENCES (in reverse chronological order)

Student Researcher (Research Opportunity Program student) – COBWEB (2023 September – current)

- Initiated research project "A simulation approach to investigate how interventions should be adjusted or introduced to bring South Korea's birth rate to safe zone"
- Enhanced critical thinking and organization skills through conducting literature reviews and preparing annotated bibliography
- Boosted self-learning skills through exploring the simulation software COBWEB
- Gained competency in formulating a research plan by understanding the functionality of different COBWEB tabs

Data Analyst Intern – Canadian Urban Institute (2023 May – 2023 August)

- Developed multivariate linear regression models to measure and evaluate national-wide carbon emissions on household level and business level that takes into consideration factors such as relative location, local socio-economic conditions, transportation, and local community assets
- Created interactive tool through R to facilitate demonstration of effects of urbanization to public
- Built multinomial logistic regression model to measure the relationships between different social connection variables and demographical variables
- Produced 300+ maps using QGIS

Undergraduate Research Assistant - UofT Population well-being lab (2022 October – 2023 May)

- Assisted on research project "Life Satisfaction Outcomes for Domain Satisfied Individuals: Clustering Domain Satisfaction" involving a big open dataset "Gallup World Poll"
- Evaluated effectiveness and appropriateness of different statistical methods and co-drafted the research plan
- Analyzed data using unsupervised clustering methods (multivariate Gaussian Mixture Model, K-means, Hierarchical clustering)
- Created tip-sheets for related algorithms (Expectation-maximization algorithm, Elbow method) to enhance understanding about the method mechanisms
- Presented research findings on Statistical Society of Canada conferences

Student Statistics Consultant – UofT Data Sciences Café (2022 September – 2023 April; 2023 September – 2023 December)

- Interpreted guest speakers' sample data and cultivate skills in understanding multidisciplinary datasets
- Gained the expertise to recommend appropriate statistical methodologies to guest speakers based on their needs and identified potential biases within current study research methods
- Prepared monthly reports on different statistical topics to demonstrate statistical approaches and coding methods to aid non-statistician researchers

Research Assistant (2022 May – 2022 August)

- Assisted a PhD student's research project on how her designed group counselling interventions help improve participants' self-forgiveness
- Cleaned up data, analyzed data using hypothesis tests and bootstrapping and consolidated skills in using statistical tool R
- Prepared a report presenting the analysis methods and codes used for the non-statistics PhD student's reference

ADDITIONAL EXPERIENCES

Teaching Assistant – UofT Department of Statistical Sciences and Data Sciences Institute (2023 September – Current)

- Courses: STA130, Visualization, Florence Nightingale Day
- Strengthened Python coding skills (especially in building linear regression models, hypothesis tests and confidence intervals) through preparation of tutorials and office hours
- Developed effective communication skills in delivering statistical concepts to students in both in-person and online settings

First-year Learning Community Assistant Peer Mentor - UofT Arts and Science Faculty (2022 September – 2023 April)

- Facilitated in the planning and implementation of all FLC sessions including discussion with professors from Department of Mathematics and library staff
- Guided lower form students with their academics and co-developed skills in facing challenges, including ways to overcome anxiety about transition to university
- Established a rapport and inclusive community with the first-year students
- Manage online Quercus page to facilitate communication with the first-year students remotely

VOLUNTEER

Data Entry Volunteer - St. Michael's Hospital Trauma Research Program and Injury Prevention (2022 September – 2022 December)

- Reviewed eligible medial charts to collect injury / poisoning information
- Documented medical records into the system

AWARDS

Eleventh Annual Canadian Statistics Student Conference First Prize Undergraduate level (May 2023)

Eleventh Annual Canadian Statistics Student Conference Travel Award (May 2023)

University of Toronto Art and Science Students' Union Undergraduate Conference Travel Grant (April 2023)