

SUMMARY

Data analyst and statistician with an M.Sc. in Statistics, with experience in software development, statistical modeling, and statistics education. Contributor to production open-source R packages.

EXPERIENCE

Vretta

Data Analyst

Toronto, ON

July 2026 – Present

- Develop, maintain, and document REST APIs using JavaScript and R, collaborating with technical teams.
- Write and optimize complex SQL queries (MySQL/MariaDB) to support data modelling and backend infrastructure.
- Debug, test, and deploy software implementations; validate technical requirements and communicate solutions to technical stakeholders.

McMaster University Department of Mathematics & Statistics

R Programmer (Research Assistant)

Hamilton, ON

June 2025 – June 2026

- Contributed 35+ merged pull requests and 160+ commits to [lme4](#), a widely used R package for mixed-effects modeling with (**43.4+ million downloads**) and **10k+ GitHub stars**.
- Engineered high-impact numerical features, notably **internal auto-scaling** for estimation stability and **MLE initialization** for large-scale data, reducing computation time and improving convergence for high-dimensional research models.
- Resolved critical bugs in core functions, including a complex matrix-subsetting fix to ensure accurate standard errors.

University of Toronto Department of Mathematical & Computational Sciences

Sessional Instructor

Mississauga, ON

January 2026 – April 2026

- Directed the third-year Computational Statistics (STA380H5) curriculum for 96 students, achieving an **Institutional Composite Mean (ICM) of 4.4/5.0**, significantly exceeding the departmental (3.9) and divisional (4.0) averages.
- Developed a project-based pedagogy requiring students to engineer production-style **R packages** and **Shiny applications**; improved students' subject-matter understanding and provided meaningful opportunities for skill demonstration.

Epson Canada

Data and Evaluation Specialist Intern

Markham, ON

May 2022 – August 2023

- Developed predictive financial models in **Excel VBA** for COGS forecasting, enabling accurate & rapid cost analysis of 3D computer vision solutions for management.
- Applied **Python** and **R** to build visualizations and analyze feasibility data for 10+ computer vision business concepts, including waste detection and robotic bin-picking applications, informing go/no-go decisions for the Business Development team.
- Conducted outreach to companies and professionals, evaluating demand for 3D vision software & hardware solutions, resulting in at least a 40-hour efficiency gain for the Business Development team.

EDUCATION

McMaster University

M.Sc in Statistics (Thesis – [Available Online](#))

Hamilton, ON

September 2024 – October 2025

- CGPA: **12/12**

University of Toronto

H.B.Sc, Applied Statistics Specialist and Mathematical Sciences Major

Mississauga, ON

September 2019 – June 2024

- CGPA: **3.92/4.0**

SKILLS

- **Programming Languages:** R, Python, SAS, HTML/CSS, SQL, Excel VBA.
- **Machine Learning/Statistics:** GLMs, logistic regression, linear mixed models, ensemble methods (random forest, boosting, bagging, BART), clustering (k-means, agglomerative, hierarchical), PCA, factor analysis.
- **R Libraries:** Shiny, Tidyverse (ggplot2, dplyr, tidyr, purrr, tibble), Easystats.
- **Python Libraries:** Matplotlib, NumPy, Pandas, SciPy, Seaborn, Plotly.
- **Tools:** Git, LaTeX, Qualtrics.