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Ruth Zhang

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EDUCATION

University of Toronto — Toronto, ON

Mathematical Applications in Economics & Finance Specialist, Statistics Minor — *Sept 2022 –*

- **GPA**: **4.0/4.0**
- **Relevant Coursework**: Real Analysis, Multivariable Calculus, Linear Algebra, Differential Equations, Probability, Statistics, Regression, Microeconomics, Macroeconomics, Financial Economics, Programming

EXPERIENCE

Teaching Assistant | University of Toronto — Toronto, ON

Courses: MAT135 – Calculus I, MAT136 – Calculus II — *Sept 2024 – Present*

- Conducted weekly tutorials for classes of 30 students, clarifying complex mathematical concepts.
- Collaborated with course instructors to design and implement strategies for improving student participation.
- Held office hours to provide individual academic support.
- Assisted in grading assignments and exams, and invigilated tests and exams.

Website Designer — Toronto, ON

Co-op — *Apr 2021 – Jun 2021*

- Designed and developed a user-friendly website for a rental company using HTML, CSS, and JavaScript.
- Designed the SQL database schema, including details about location and customer data.
- Conducted user testing sessions and analyzed feedback to enhance the website's usability and functionality.
- Integrated third-party APIs to enhance website features and functionality.

E-commerce Partner — Remote

Freelance — *Jan 2020 – Present*

- Designed and marketed handwritten fonts for sale on a popular Chinese e-commerce platform.
- Developed marketing strategies to increase visibility of the fonts and achieved sales of over 6,000 copies.

PROJECTS

- **Life Expectancy Regression Analysis**: Conducted a linear regression analysis in R to model the impact of socio-economic factors on life expectancy, including hypothesis testing, confidence interval estimation, ANOVA tests, multicollinearity diagnostics, residual analysis, and validation of model assumptions for robustness and accuracy.
- **Portfolio Optimization Project**: Utilized advanced Excel functions to calculate expected returns, variances, and covariances of stocks; constructed efficient portfolios and optimized asset weights for maximum risk-return ratio.
- **Compatibility Generator**: Developed a Python program that calculates a compatibility score between two individuals based on their names, birthdays, and zodiac signs. The project involved extensive use of Python functions to ensure readability and reusability of the code.
- **Toy Company Financial Report**: Conducted financial analysis for a new toy product at *Tricky Toys*. Used Excel to calculate net present values. Provided strategic insights on production feasibility.

SKILLS

Languages: Python, SQL, JavaScript, R

Technologies: MySQL, HTML/CSS, LaTeX, Advanced Excel

HONORS & AWARDS

- **2024 University of Toronto Scholar**: Awarded to up to 300 undergraduate students based on academic merit.
- **Nanda Choudhry Prize in Economics**: Awarded for the 2023-2024 academic year to a Specialist in Economics earning the highest average mark in required courses for the program during second year of study.
- **2023 & 2024 Dean List Scholar**: Awarded to students who obtain a cGPA of 3.50 or higher.
- **Innis College Alumni And Friends Award**: Awarded to students with outstanding academic performance.
- **Al And Eleanor May Scholarship In Economics**: Awarded based on academic merit.