# Mark Asuncion

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### TECHNICAL SKILLS

Languages: Python, R, SQL (MySQL), HTML/CSS, LaTeX, Java

Software: Git, Power BI, Jupyter Notebooks, RStudio, PyCharm, Eclipse, Excel

Libraries: Pandas, NumPy, matplotlib, scikit-learn, Selenium, TidyVerse, ggplot2, PyTorch, R Markdown, R Shiny

## EDUCATION

## University of Toronto

Mississauga, ON

Sep. 2019 - May 2024

Honours Bachelor of Science in Applied Statistics, Minor in Mathematics

• Cumulative GPA - 3.91/4.00 (high distinction)

- Achieved Dean's Honours List throughout all semesters enrolled
- Relevant Coursework: Regression Analysis, Experimental Design, Machine Learning, Neural Networks, Databases
- Extracurriculars & Societies: Intramural Basketball, UTMSAM, UTM CSSC, Data Science Toronto

## Professional Experience

## **Business Analyst Intern**

May 2022 - Aug 2023

Environment and Climate Change Canada | Data Ingest & Product Development Unit

Toronto, ON

- Collaborated with multidisciplinary teams to gather, interpret and write business documents to facilitate communication between stakeholders
- $\bullet$  Managed and analyzed large-scale weather datasets in XML format for clients using  ${f R}$  and  ${f Excel}$
- Leveraged Power BI to produce insightful dashboards for analytical reports, providing effective data visualization
- Automated routine tasks using Python, enhancing workflow processes and boosting overall efficiency by 12%
- Quality assured outputs for 30+ networks across Canada, ensuring data specifications were met for products used globally

### Teaching Assistant

Aug. 2021 – Present

University of Toronto | Courses Taught: MAT132, MAT135, MAT136, STA258, STA304

Toronto, ON

- $\bullet \ \ \text{Facilitated weekly tutorials for 30+ students and hosted weekly office hours for several math and applied statistics courses}$
- Created curated learning materials for each tutorial and gave additional assistance outside of class to ensure student success
- Supervised both lectures and discussion boards to provide students with answers to their questions in real-time
- $\bullet$  Marked over 1000 assessments from term tests to assignments, providing detailed feedback to each student

### Computer Science Research Assistant

Jan. 2023 – May 2023

University of Toronto

Toronto, ON

- Collaborated with professors by analyzing TA feedback to aid in the evaluation of the Writing Development Initiative
- Employed thematic analysis to derive meaningful insights about the writing habits of students in computer science
- Performed data cleaning and wrangling using **Python** scripts and effectively consolidated key observations into a comprehensive report using **Jupyter Notebooks**

# Projects & Research

 ${\bf NSERC\ Undergraduate\ Student\ Research\ Award}\mid \textit{R,\ TidyVerse,\ LaTeX}$ 

May 2021 – Oct. 2022

https://www.mdpi.com/1099-4300/24/11/1579

- Awarded prestigious NSERC (Natural Sciences and Engineering Research Council of Canada) scholarship in recognition of academic excellence and research potential
- Conducted cutting-edge research under the mentorship of faculty, focusing on model checking with right-censored data
- $\bullet$  Affirmed the paper's findings by building models in  ${f R}$  from real-world datasets and applying the relevant tests
- Published the research paper in a reputable peer-reviewed journal as a co-author, gathering over 800+ views from users

Text Translator | Python, PyTorch, Pandas, Numpy Matplotlib, Git

Sept. 2023 - Dec. 2023

- Built and trained a **transformer model** in **PyTorch** capable of translating Shakespearean text into modern English with 83% accuracy using NLP techniques
- Completed necessary data processes (exploration, pre-processing, cleaning, splitting) using **Pandas & NumPy** and documented metrics of performance using **matplotlib**

## Arts-Based Stats Web App | R, R Shiny, Git

Jan. 2023 - Apr. 2023

https://gmasuncion.shinyapps.io/ArtBasedStatisticsSurveyWebpage/

- · Conducted an analysis on student perceptions regarding the efficacy of arts-based methodologies in teaching statistics
- · Developed an interactive data visualization and analysis tool using R Shiny to output the findings of the research
- Created interactive visualizations that allowed users to dynamically manipulate variables, enhancing data comprehension
- Presented the app and insights to an audience of statisticians at the Joint Statistical Meetings (JSM) hosted by ASA