

SIQI (FERMI) FEI

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EDUCATION

University of Toronto - Candidate for Honours in Bachelors of Science (H.Bsc) Computer Science and Statistics

Expected Graduation: 2025 (includes completion of co-op program)

Relevant Courses: Software Design, Software Testing, Object Oriented Programming, Statistics and Machine Learning

Awards: University of Toronto Scholarship (2020-21 Fall/Winter Session)

PROFESSIONAL EXPERIENCE

Software Engineer - Save Fur Pets Animal Rescue, Mississauga, Canada

September 2023 - Current

- Developed web applications using **HTML** and **JavaScript** to increase web traffic and maintain capabilities to enhance fostering capacity.
- Debugged and resolved customer issues related to software applications and developed solutions to address them
- Enhanced web application quality by designing and implementing comprehensive **automation tests** using **Wix** and **Cypress**. Developed test cases and scenarios to cover various user flows and edge cases, reducing bugs by **35%** and ensuring high reliability and performance of web features
- Demonstrated advanced proficiency in **Git** for **version control**, effectively managing source code changes, and collaborating with other developers to maintain a high standard of code integrity and organization

Co-President - Pet the Pets Club at University of Toronto Mississauga

September 2023 - Current

- Founded a club**, growing its membership to **over 30 students** and creating a vibrant community for animal advocacy on campus.
 - Organized events for up to **100 attendees** for stress relief through animal interaction
 - Fostered partnerships with multiple shelters to boost adoption and launched a community volunteer program to support animal welfare.
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PROJECTS

Team Lead - Machine Learning Model Developing, University of Toronto

January 2024 - Current

- Directed the creation of sophisticated machine learning algorithms, including Convolutional Neural Networks (**CNN**) and multilayer perceptrons (**MLPs**), to boost predictive precision and algorithmic speed
- Guided a team in the integration of cutting-edge **AI techniques**, resulting in significant practical applications across various domains
- Implemented rigorous **QA** processes for model validation, achieving a testing accuracy of **93%** on test cases through systematic test design and execution, significantly outperforming initial benchmarks

Analyst - Data Science Course Projects, University of Toronto

January 2024 - Current

- Conducted statistical analysis on football possession using **Bayesian** methods and **Logistic Regression**, translating complex models into actionable team strategy insights
- Developed predictive models for the 2018 US election outcomes, leveraging demographic trends and social media behaviors via K-Nearest Neighbors (**KNN**) for strategic insights
- Analyzed Brazil's 20-year development using **GIS and econometric models**, identifying key growth drivers and policy impacts, leading to actionable policy recommendations
- Developed and executed a series of **predictive validation tests** for models predicting the 2018 US election outcomes, ensuring robustness and accuracy through extensive scenario testing.

Team Lead - Courses Simulator Project, University of Toronto

June 2023 - September 2023

- Developed a virtual learning environment using **JAVA** to enable students to take quizzes and instructors to manage course content
- Gained proficiency in database management, including student information, course data, and grades using **SQL**
- Designed user-friendly interfaces for students and instructors, enhancing **UI/UX** design skills
- Led the **quality assurance** process, including the creation of **automated unit** and **integration tests** for application components, which improved code reliability and user experience.

Developer - Weather App

June 2023 - September 2023

- Developed a real-time weather app with weather updates and notifications, demonstrating software development skills
 - Created user-friendly notifications, integrated external weather **APIs**, managed user data, and used Git for code management
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SKILLS

- Technical and Programming:** JavaScript, HTML, MySQL, SQL, API, Python, JAVA, C, R, Linux, Git, Cypress, Playright, Selenium, Wix, SAS, Microsoft Office 365, Photoshop, Adobe Creative Suite, Procreate, Video Filming and Editing, Graphic Design
- Professional:** Leadership, Team Collaboration, Problem Solver, Relationship Building and Management, Data Gathering, Effective Communicator, Application Testing, Technical Writing, Great Critical Thinking
- Languages:** English and Chinese