

# 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: 2026 (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)

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## PROFESSIONAL EXPERIENCE

### Full-Stack Web Developer - MintC. Proverbs Auction, Toronto, Canada

May 2024 - September 2024

- Designed and implemented front-end components using **React** and **JavaScript** to create responsive and user-friendly auction interfaces.
- Developed back-end APIs and server-side logic using **Django** to handle data transactions and ensure seamless functionality.
- Worked with **PostgreSQL** and **MySQL** databases to manage, retrieve, and store auction-related data efficiently.
- Integrated **GraphQL** to streamline data queries and improve data management across the platform.
- Applied encryption techniques like **RSA**, **AES** and **Base64** to secure customer data and transactions throughout the auction process.
- Conducted thorough **QA testing** using automated testing tools to identify and fix bugs, improving system reliability and reducing downtime by 30%.

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

September 2023 - Current

- Developed and maintained web applications using **HTML**, **JavaScript**, and **PHP**, improving web traffic and fostering capabilities.
- Enhanced the existing web applications by integrating **Laravel**, focusing on **MVC** design patterns to optimize the software architecture.
- Enhanced web application quality by designing and implementing comprehensive **automation tests** using **Cypress**. Reducing bugs by **35%** and ensuring high reliability and performance of web features

### 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**
- 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
  - Established a robust **QA** framework for continuous testing of the application, including **automated API testing** to ensure reliable integration
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## SKILLS

- Technical and Programming:** React, JavaScript, Django, Tableau, PHP, Vue, Hadoop, HTML, CSS, Laravel, MySQL, PostgreSQL, SQL, API, Python, JAVA, C, R, Linux, Git, SAS, Cypress, Playright, Selenium, Wix, Microsoft Office 365, Photoshop, Adobe Creative Suite, Video Filming and Editing, AES, RSA, base64
- Professional:** Leadership, Team Collaboration, Problem Solver, Relationship Building and Management, Data Gathering, Effective Communicator, Application Testing, Technical Writing, Critical Thinking, Active Learning, Adaptability, Creativity, Interpersonal Relationships, Listening Effectively, Personal Development, Taking Initiative
- Languages:** English and Chinese