**Houfu Chen Email:** houfu.chen@mail.utoronto.ca **| Phone:** 647-633-9933

**LinkedIn:** [linkedin.com/in/houfuchen](https://www.linkedin.com/in/houfuchen/)**| Portfolio:** [houfu72.com](https://houfu72.com/) **| GitHub:** [github.com/chf-NewStart](https://github.com/chf-NewStart)

**SUMMARY OF QUALIFICATIONS**

* Proficient in **QA automation** with **Python, C#, Selenium**, strong debugging, and testing skills.
* Awarded **President’s Research Award** for technical excellence; **featured UofT alumni** in **Data Analytics & ML**.
* Experienced in **ML, LLMs, and automation** through academic, industry, and personal projects.

**EDUCATION**

**University of Toronto (UofT)** Toronto, ON Master of Engineering in Electrical & Computer Engineering | GPA: 3.84/4.00Sep 2023 – Mar 2025

*Emphasis: Data Analytics & Machine Learning (*[*Featured Alumni*](https://gradstudies.engineering.utoronto.ca/master-of-engineering-meng/emphasis-in-analytics/)*)*

* Graduate TA for ML and Data Analytics courses; developed projects/tutorials and graded 1,000+ submissions.

**University of Waterloo (UWaterloo)** Waterloo, ON Bachelor of Applied Science in Nanotechnology Engineering (with coop) |GPA: 81/100Sep 2018 – Jun 2023

* President’s Scholarship of Distinction (2018); President’s Research Award (2019); Graduated with Distinction

**TECHNICAL SKILLS**

* **Programming Languages**: Python, JavaScript (React/Node.js), C++, Bash, R
* **Tools**: Selenium, BDD, Cucumber, WebDriver IO, Postman, LTspice, SonarQube, MS Office
* **Database**: SQL, Azure (Data Factory, Databricks)
* **Frameworks/APIs**: LLM APIs, Yelp/Google Places, REST APIs

**RELATED EXPERIENCE (Explore more experiences in detail at** [**houfu72.com**](https://houfu72.com/#experiences)**)**

**Ford Motor Company**Oakville, ON

*QA Automation Specialist* May 2022 – Aug 2022

* Conducted **daily TCU performance testing**, ensuring **consistent network throughput validation** by executing and analyzing automated test cases.
* Identified and resolved **40+ SSH and Selenium exceptions**, reducing test failures and improving **workflow efficiency** by **documenting debugging processes**.
* Contributed to **CarPlay testing automation**, increasing test consistency by **refining test execution procedures and troubleshooting failures**.

**Imagine Communications Corp** Waterloo, ON

*QA-Developer* Jan 2021 – April 2021

* Developed **autonomous testing scripts** for UI interactions, improving test coverage and efficiency in **validating user interface behaviors**.
* Monitored and maintained **daily server status**, reducing **manual testing efforts** by scripting automated health checks.

**Teranet CMS**Waterloo, ON

*QA Automation Specialist* Sep 2020 – Dec 2020

* Developed **regression tests in C# using Selenium**, improving test reliability by **automating critical application workflows**.
* Reduced **test execution time by 15%** by optimizing test case structure and debugging automation scripts.

**Manulife** Waterloo, ON

*QA-Developer* Jan 2020 – April 2020

* Wrote **BDD test scenarios** to validate **cross-browser functionality across 4 browsers**, resolving **9 IE-specific defects**.
* Improved **code quality** by addressing **40+ SonarQube issues**, increasing test coverage to **98%** and enhancing maintainability.
* Delivered a **product demo to 50+ stakeholders**, improving team understanding and feedback cycles on testing outcomes.

**PROJECT EXPERIENCE (Explore more projects in detail at** [**houfu72.com**](https://houfu72.com/#projects)**)**

**LLM and Hardware-Related Projects**

* **Emergency Route Planning Tool:** Designed an LLM-powered evacuation planner integrating Dijkstra’s algorithm and Ant Colony Optimization (ACO), improving route efficiency in disaster scenarios.
* **Food-Raccoon (LLM Food Recommendation System):** Developed a Python-based food recommendation system using Yelp/Google APIs and LLMs, enabling more personalized restaurant suggestions.
* **S.W.I.M (Sequential Wave Imprinting Machine):** Built an Arduino-based LED display system, improving motion-triggered image projection using time-lapse photography.
* **Autonomous Robot:** Designed and programmed a LEGO Mindstorms robot for object retrieval, achieving 3rd place in a robotics competition.