

# Qingyi (Cherry) Xia

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## TECHNICAL SKILLS

**Programming Languages:** Python, Java, React, Angular, HTML, C#, Matlab, R, JavaScript/TypeScript, CSS, SQL, Swift, Node.js

**Tools/Software:** MYSQL, SQLite, PostgreSQL, MongoDB, Oracle DB, Git, Postman, AWS, Microsoft Azure, Angular, Docker, TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy, Hadoop, Apache Spark, Jest, Tableau, LaTeX

**Frameworks:** Ionic, ReactJS, AngularJS, and experienced in multi-threaded server/client-side code, DBMS & API's

## EDUCATION

### University of Toronto

*Master of Engineering (MEng)*

*Emphasis: Machine Learning & Data Science*

Sep 2024 – Sep 2025  
GPA: A to A+ in all courses

### University of Toronto

*Bachelor of Applied Science | Awards: Dean's Honour List in 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> year (top 20%)*

*Major: Industrial Engineering Minor: Artificial Intelligence, Engineering Business*

Sep 2019 - Jun 2024  
GPA: 3.51/4.00

## EXPERIENCE

### Full Stack Developer

*University of Toronto MoveU Program (React Native, Node.js, Express, Jest, MongoDB)*

Sep 2023 – Present  
Toronto, Ontario

- Led development of MoveU.HappyU, a cross-platform mobile app that tracks student health data and dynamically generates visual wellness reports for personalized feedback.
- Built secure backend services with Node.js and MongoDB, implementing industry standard OAuth 2.0 and SSL practices for robust user authentication and safe data handling across environments.
- Developed the frontend interface using React Native and Bootstrap CSS, optimizing navigation flow and improving load performance by 30% across iOS and Android platforms.
- Wrote and executed 60+ unit and integration tests using the Jest framework, achieving 90% code coverage and reducing regression defects by 40%.

### Data Scientist

*Nari Technology Co., Ltd. (Python, SQL, Tableau, Git)*

Jun 2023 - Aug 2023  
Beijing, China

- Built Python scripts and SQL queries to analyze smart grid performance, enhancing system diagnostics and real-time feedback efficiency.
- Collaborated with cross-functional engineering teams to define KPIs for new product lines and designed interactive data dashboards using Tableau and custom Python scripts.
- Performed data audits and implemented data cleaning pipelines using Pandas and SQL, reducing inconsistencies and entry errors by 20% and improving downstream analytical reliability.

### Backend Software Developer

*Smile Digital Health (Java, Spring, Thymeleaf, REST, PostgreSQL, Docker, Git, JUnit, Mockito)*

May 2022 – May 2023  
Toronto, Ontario

- Engineered robust backend services using Spring and Java, delivering 25% of RESTful APIs with secure JSON Web Token (JWT) authentication and seamless integration into a complex healthcare platform.
- Reconstructed database schema using Boyce-Codd Normal Form, increasing data consistency and query efficiency by 30% across multiple health record systems.
- Implemented critical security measures including bcrypt.js, Passport.js, and encryption protocols to safeguard sensitive patient data and ensure HIPAA compliance.
- Collaborated cross-functionally with QA, support, and developers to troubleshoot complex issues, contribute to code reviews, and refine CI/CD pipelines using Git, Maven, and Docker.
- Demonstrated strong problem-solving, technical agility, and leadership by onboarding new co-ops, managing cross-functional collaboration, and contributing to diverse parts of a large-scale codebase.

## PROJECTS

### Transformer-DRL Portfolio Optimizer | Python, PyTorch, RLlib, Transformers, CVXPY

Jan 2024 – Aug 2024

- Engineered a Transformer-based Actor-Critic reinforcement-learning engine that dynamically allocated portfolio weights for five Chinese equities, achieving a 10.5% higher Sharpe ratio and 13% lower volatility compared to quadratic programming and fully connected neural network baselines.

### iSkin Web Application | Java, JSP, MySQL, Servlet, HTML/CSS, OOP

Sep 2021 – Dec 2021

- Built a skincare product recommendation platform using Java Servlet and JSP with a MySQL backend, featuring web scraping to compare identical products across multiple online platforms and recommend the best price.
- Implemented user authentication, product filtering, review system, and cart management features to ensure responsive, secure interaction between frontend and backend.