

# ADRIAN YU

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## Education

### Toronto Metropolitan University

*Candidate for Bachelor of Computer Engineering*

Sep. 2021 – May 2026

*Toronto, Ontario*

## Relevant Coursework

- |  |  |                                    |                       |
|--|--|------------------------------------|-----------------------|
| • Advanced Algorithms                        | • Computer Organization and Architecture | • Analysis and SPEC                | • Analysis and Design |
| • Database Systems I                         | • Software Requirement                   | • Software Design and Architecture | • Systems Programming |
| • Engineering Algorithms and Data Structures |  | • Object Oriented Eng              |                       |

## Experience

### Oak Valley Health

*Data Analyst Intern*

January 2025 – March 2025

*Markham, ON*

- Converted legacy SAS code to SQL, helping reduce licensing costs while processing and filtering over 10,000 records.
- Validated the accuracy of healthcare data in collaboration with analysts by cross-referencing source systems, while independently troubleshooting and optimizing 50+ SQL queries, reducing execution time by 15%.
- Documented 60+ automated reconciliation checks, improving transparency and efficiency in data validation processes.

### Safari Kid

*Coding Instructor*

June 2015 – August 2023

*Richmond Hill, ON*

- Taught coding to over 100+ young learners, fostering a deep understanding and passion for technology, with a 90% student satisfaction rate based on feedback.
- Prepared tailored educational programs, customizing lessons for 10+ students per class, improving student coding proficiency by 30% over the course of a term.
- Created a supportive classroom environment, empowering students to complete coding projects independently, resulting in 80% of students progressing to advanced coding levels during their time in the program.

## Projects

### HoopLab

<https://github.com/adrianyu91/HoopLab.git>

- Designed a full-stack web application using TypeScript, React, Node.js, and AWS DynamoDB, enabling users to track and create over 500 personalized basketball workout plans based on their skill level and position.
- Designed scalable database schema for AWS DynamoDB to efficiently store 1,000+ workout logs and user-generated plans.
- Ensured smooth backend API in Node.js, allowing users to save and retrieve custom workouts with less than 1-second latency, supporting 10+ active users in real-time.

### AI Code Sentinel Debugger

<https://github.com/adrianyu91/AI-Code-Sentinel.git>

- Engineered a real-time debugging assistant that detects errors in Python scripts and provides AI-driven fixes using the Gemini API, reducing manual error troubleshooting time by 30%.
- Introduced an interactive PySide6 GUI, enabling users to seamlessly monitor and execute scripts, improving user interaction efficiency by 40% compared to manual debugging.
- Integrated Watchdog for automated file tracking, allowing script execution upon modification, resulting in real-time error detection and correction without the need for copying and pasting into external tools.

### NBA Predictor

- Manipulated NBA game prediction model using Python, Jupyter Notebooks, Scikit-learn, and Pandas, analyzing 7 seasons of data with over 17,000 data points, achieving a 60% in prediction accuracy.
- Scraped and parsed NBA box scores using BeautifulSoup, cleaning 17,000+ lines of HTML data and converting it into pandas DataFrames for seamless machine learning integration.
- Conducted feature selection to identify significant predictors, enhancing the performance of the machine learning model.

### Bookstore App

<https://github.com/adrianyu91/Bookstore-Application.git>

- Pioneered a comprehensive bookstore application using Java, incorporating design patterns such as Singleton, Facade, and State.
- Created a user-friendly UI with JavaFX, featuring a membership system and a points reward mechanism to enhance customer loyalty and engagement.
- Lead a team of 3 members, employing agile methodologies to meet project deliverables.