Liyu Xiao

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Markham, ON - L6C 0X3, Canada

EXPERIENCE

• **Upper Markham Learning Centre** *July 2024 - Sep 2024*
Python Instructor Markham, Canada
- Developed individual lesson plans for over **25** students in learning python programming
- Utilized applications such as codeHs, ClassDojo and Replit to optimize learning for the students
- Taught concepts such as looping, string manipulation, data structures, and standard coding conventions
- Evaluated and provided feedback on student projects, ensuring code quality and troubleshooting errors.

• **City of Markham** *Sep 2023 - Sep 2024*
Chess Instructor Markham, Canada
- Designed and implemented a 8 and 13 week curriculum for both beginner and intermediate chess players
- Taught the fundamentals of chess, how pieces moved, tactics, strategy and standard chess theory
- Held tournaments at the end of every season, providing students the opportunity to apply their skills

• **Kumon Canada** *October 2021 - April 2024*
Math and Reading Tutor Markham, Canada
- Maintained and supervised a classroom environment with **200+** students per session
- Assisted students in understanding a spectrum of English language skills, from fundamental syntax and grammar to satirical devices, literary criticism, and semantic analysis
- Taught students mathematical concepts ranging from basic arithmetic, to factorization and proving trigonometric identities

EDUCATION

• **McMaster University** *Aug 2024 - May 2029*
(B.A.Sc.) in Computer Science Hamilton, Canada
- Relevant Courses: Linear Algebra, Calculus, Computational Thinking, Introduction to Programming

PROJECTS

◦
Nerd Royale: [Battle Royale] *June 2024 - Present*
Tools: [Unity, C#] [⦿]
* Developed and maintained the back end architecture, designing and implementing abstract classes and core game structures in C#, ensuring scalability and efficient code management
* Implemented the projectile system, creating classes for various projectile types and managing shooting mechanics within the game.
* Assisted in refining game play by testing and debugging various mechanics and class structures implemented by the team.
* Managed the project's GitHub repository, organizing files, tracking changes, and maintaining version control for seamless collaboration.

◦
Fortopia: [Platform Runner] *December 2023 - January 2024*
Tools: [Greenfoot, Java, OOP, Git] [⦿]
* Developed the collision detection and player movement for the character
* Created the different maps for the game, ensuring each level had different obstacles
* Applied OOP to reduce redundant code
* Collaborated with 3 other students in developing and presenting the game

SKILLS

- **Programming Languages:** Python, Java, C#, Haskell
- **Libraries and Frameworks:** React, Pygame, Material-UI, Java(Greenfoot), Flask
- **Development Tools:** Firebase, Git, GitHub, Unity