Simon Lin

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Education

Toronto Metropolitan University (Ryerson University) Toronto, ON
Bachelor of Science - Computer Science with Co-op *Sept. 2021 - present (est. May 2026)*

Awards: Dean's List (2025)
Relevant Coursework: Software Engineering, Data Structures, Machine Learning, Artificial Intelligence, OS

Experience

Software Engineer Intern May 2025 - present
Magna International *Newmarket, ON*
- Mechatronics, Mirrors & Lighting team

Software QA Specialist Intern Sept. 2023 – Aug. 2024
SOTI *Mississauga, ON*
- Developed **automated** test plans, test cases and unit tests in **C#**, **Selenium** and **Microsoft Azure DevOps** adhering to software requirements and technical specifications for the MobiControl product line.
- Discovered and **resolved over 225 critical defects** and performance issues across product UI and dashboards.
- Lowered **SQL** database retrieval time by **27%** by optimizing legacy queries to clean, transform & aggregate data.
- Executed manual & automated regression tests within **Agile CI/CD pipeline**, reducing post-release bugs by 72%.

Freelance Developer July 2022 – Sept. 2023
Developer @ Tuning Studios
- Contracted to develop gameplay mechanics for a multiplayer sandbox game with over **6.3 million total visits**, using **Lua**, to ensure an immersive player experience.
- Implemented scripts to optimize server-client communication to improve game responsiveness on mobile devices.
- Integrated monetization such as game passes and in-game currency to **boost microtransactional revenue by 32**% (over $8,590 USD generated in sales)

Python Coding Instructor July 2021 – Aug. 2021
The STEAM Project *Richmond Hill, ON*
- Taught 20 summer camp students from grades 7-8 a creative curriculum centered on **Python** programming.
- Collaborated with co-instructors to create an educational and interactive coding curriculum on a weekly basis.
- Fostered engineering mindsets among students through daily coding challenges and projects.

Projects

NBAction | *Demo Video* | *Python, OpenCV, TensorFlow, PyTorch, YOLOv8* Sept. 2023 – Dec. 2024
Basketball Action Classifier
- Developed and trained a deep-learning model capable of detecting basketball actions to analyze live NBA games.
- Optimized a live video processing pipeline using dynamic frame sampling to reduce overall image latency by **68%.**
- Performed model fine-tuning to achieve an overall detection rate of **92%** across all object classes.
- Authored an IEEE-style academic paper detailing my methodology and research results, pending peer review.

Technical Skills

Programming Languages: Python, C, C#, Java, JavaScript, SQL, Bash
Libraries & Frameworks: OpenCV, TensorFlow, .NET, PyTorch, Selenium, NumPy
Developer Tools: Git, Jira, Jenkins, Docker, Azure DevOps, GitHub, AWS, HTML, CSS