

Joshua Green

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EDUCATION

University of Waterloo, Ontario

2029

Honours Co-op - Computer Science

- Relevant computer science coursework in functional and imperative programming in racket; abstract data types such as AVL trees, sets, and lazy lists; lambda calculus; Big-O notation
- Relevant mathematics coursework in advanced linear algebra, abstract algebra, real analysis, and number theory

PROFESSIONAL EXPERIENCE

Freelance Roblox developer

2018 - Present

Scripter, Animator, VFX artist

- Completed over 20 commissions for games with 1,000+ active players
- Scripted systems involving data saving, client-server communication, artificial intelligence, user interface, visual effects, and vehicle dynamics
- Key Skills Applied: Modularization, Abstraction, Scalability, Reusability

PROJECTS & EXTRACURRICULAR

Machine Learning Research Paper

March 2023

- Wrote a 4000-word essay comparing the effectiveness of Artificial Neural Networks and Random Decision Forests at binary classification to obtain my IB diploma
- Applied technologies such as NumPy, seaborn, matplotlib, scikit-learn, and TensorFlow

2048 AI

April 2024

- Applied reinforcement learning to develop an AI designed to play the game 2048 through proximal policy optimization, achieving a score of 1024
- Utilized libraries such as Open AI Gym, stable_baselines3, Pygame, and NumPy

AI workshop

December 2023

- Led a 3 day workshop, teaching 20+ peers in my high school's computer science club about modern AI concepts and applications such as diffusion, computer vision, and neural networks

SKILLS

Programming languages: Python, Lua, C++, Racket, HTML/CSS

Developer Tools: Jupyter Lab/Google Colab, VS Code

Soft Skills: Collaboration, Leadership, Communication, Planning