Ziyu Zhao

Actively Learning and Passion of Problem Solving

student ziyu.zhao2@mail.mcgill.ca

Education

2021.9-present McGill University Honour Computer Science

GPA 3.86/4

2020.1-2021.5 Vanier College Pure and Applied Science (DEC)

Graduated with Dean's Honour List

Project experience

Github username: ZhaoZiyu1998 Snake game by python and pygame CS188 Pacman project (ongoing)

Several coding projects followed by online videos with Tensorflow, NumPy, and Scikit-learn to practice:

Linear regression, Knn, K-mean, A* for pathfinding, AI for flappy bird game

Major knowledge from course

Math:

<u>Calculus:</u> Single and multivariable, Vector Calculus(gradient, divergence, and curl)

Linear Algebra: Matrix Operation, Determinant, System of Linear Equations, Vector Space, Linear Mapping,

Orthogonality, and Eigenvalues & Eigenvectors

Probability and Statistic: Sample Space, Conditional Probability, Bayes's Theorem, Known distributions, WLL, CLT, Sampling

Distribution, Estimation, and Hypothesis Testing

Discrete Math: Logic, Number Theory, and Graph Theory

Computer Science:

Programming Languages: Python, C, Bash, Java, R, Ocaml, Mips

Data Structure and Algorithm: BFS, DFS, Time Complexity, Divide and Conquer, Dynamic Programming, ADTs, Stringology,

Trees, Information Theory, Compression

Artificial intelligence(basic): Machine Learning, Neural Network (by projects above)

<u>Miscellaneous:</u> Unix, Assembly Languages, Combinational&Sequential Logic, RAM, Finite State Machine, and Programming

Paradigms