

Vincent Terpstra

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Programmer Profile

I am a self-motivated programmer with a passion for problem solving, and writing efficient readable modular solutions. As an independent developer my SDLC was focused on creating the minimum viable product, with an agile approach to adding new features. I am constantly challenging myself, programming innovative solutions and applying the code to real-world scenarios.

Education - Computer Programming Diploma

Seneca's School of Information & Communications Technology 2018 - 19

Graduated at the top of my class, with 4.0 in the majority of my classes. Tutored several students for the C++ final exam. On the Winter 2018 President's Honour list for academic achievement. Conducted peer-review, debugging classmate's assignments.

- Web Development - javascript, html, css; Using node.js, express framework, and handlebars for templating. Used both mongoDB and postgresSQL for back-end.

- OOP - C++ standard function library, containers, lambdas, pointers

 - Java simple apps with javaFX; sockets, streams, multi-threading

- Database Management – using IBM's iSeries & SQL, normalizing data; rpgle, clle

- Systems Analyst - Writing business use cases and system diagram documents

- GPU - professional option - Application profiling, writing kernels using Nvidia CUDA toolkit for many-core devices. Intro to OpenCL.

Project Portfolio: vincent-terpstra.github.io

Pool Game – Java - LibGDX - OpenGL – Independent 2019

Creating a simple Android/Desktop/html application. OpenGL shaders render 3D pool balls from squares, linear algebra and a phong shader algorithm.

Sudoku Solver – C++ & CUDA – Class group project 2019

Implementing and profiling a sudoku solver to run on a Nvidia GPU. Reduced the runtime of the algorithm from 16 minutes to 750 microseconds!

<https://wiki.cdote.senecacollege.ca/wiki/TriForce>

Connect Four AI – Java – Class project

A simple application using JavaFX for GUI. Later implemented a backtracking AI using a recursive function and then added path reduction.

A* Pathfinding Algorithm – Java - LibGDX - Independent 2018

Implemented a hexagonal grid and randomly generated 'infinite' map--organized in Quad tree sections. Applied A* pathfinding algorithm using distance heuristic. Added direction to reduce neighbour nodes.

Personal Interests

Board games, distance running, indie game dev, reading, and creative writing.