

# Neil De Swart

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## Summary

*Junior Developer, with an interest in real-time computer graphics and optimization techniques*

A fascination with technology keeps me exploring new ideas from the **ground up** to get a deeper understanding of the subjects. The topics that interest me the most are **Graphics Programming, Mathematics, and Game Programming**, which I gained familiarity with

at University and have continued to explore through personal projects. During these projects I have focused on solidifying my understanding of the fundamentals of **Modern C++; Python; writing clean, concise, scalable code; debugging; and problem solving.** while learning tools and APIs such as **Vulkan, Winapi, GLSL, and Linear Algebra.**

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## Technical Skills

### LANGAUGES

→ C/C++  
→ Python  
→ GLSL

### TOOLBELT

→ Winapi  
→ CUDA  
→ Vulkan  
→ Debugging

### TOOLSHEED

→ Javascript  
→ Shell Scripting  
→ HTML & CSS  
→ Visual Basic

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## Soft Skills

### COMMUNICATION

demonstrated from customer service roles such as the reuse centre where I would deal with customer queries

### QUICK LEARNER

I enjoy learning and spend most of my time trying to learn something new, and develop my existing skills.

### PROBLEM SOLVING

gained at university, developed & honed by personal projects and an deep interest in anything computing

### GENERAL IT

Through the approach and learning by being curious I have developed a general understanding of computing which helps using word & data processing application straight forward.

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## Projects

### Psychosis Defined

2D GAME

A 2D Game made for learning using the bare minimum amount of external libraries to get an understanding of the low level workings of game/graphics programming.

• C/C++ • Python • GLSL • Mathematics • WinApi •

### Small Test Projects

PLAYGROUND

An assortment of python applications used for testing ideas quickly, Habit Tracker, CSS code styler, Map Maker, Ray Tracing, Unit Circle Playground,

• Python • General Mathematics • WinApi • Deep Learning •

### Cooking Innana

3D APPLICATION

Basic 3D application made using OpenGL, C++ and an assortment of libraries. purpose was for learning graphics programming and playing around with ideas.

• OpenGL • 3D Mathematics • GLSL • Debugging •

### Tayside Reusers

DATA ENTRY

made some macros in visual basic for excel to help with calculating and entering CO2 levels saved from the dumps. then moved on to making an application in python to automate more of the task. sadly got interrupted by COVID and could not complete the project.

• Visual Basic • Python • Data Structures • Optimization •