

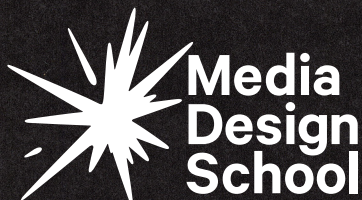
Game Programming

BACHELOR OF SOFTWARE ENGINEERING

CAREER OPPORTUNITIES

- **Game Programmer**
- **Software Engineer**
- **Graphics Programmer**
- **Engine Programmer**
- **Artificial Intelligence Programmer**
- **Technical Lead**

You will find our Alumni at: **Activision Blizzard, Splash Damage, Hi Rez Studio, Playside, Grinding Gear, PIKPOK, Sledge Hammer, Torn Banner** and many more...





GAME PROGRAMMING

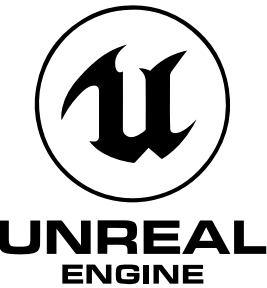
Learn a range of programming languages from C++ to Swift, enabling you to succeed in the games industry and beyond.

Our teaching style not only gives you the knowledge of tools, but the kit to work in a team, an essential but overlooked necessity. Hone your abilities in interviewing, presenting and communicating while you craft a masterpiece with your small team. Be amongst the most sought-after graduates for New Zealand's gaming industry, forging alliances with the likes of Rocketwerkz, Pik-Pok and Outerdawn.

SOFTWARE/LANGUAGES YOU'LL LEARN:

- C/C++
- OpenGL (API)
- Lua
- Game Maker
- Microsoft Visual Studio
- Unreal
- Unity

INDUSTRY PARTNERS:



PlayStation First



MDS is the only school in New Zealand where students can develop games for the PlayStation platform and for iOS devices.



HONESTLY, THE STUDENT GAMES HERE AT MDS ARE JUST SO GOOD. I'M BLOWN AWAY. GIVEN THEY WORK ON THEM FOR ABOUT 7 MONTHS, ITS VERY VERY IMPRESSIVE. THAT'S A TESTAMENT TO THE STUDENTS HERE AND THE LECTURING FACULTY GETTING THEM ALL ACROSS THE LINE."

Ben Carnall, CTO, Rocketwerkz



Falsepine

Voyager Softworks

Artists:

- Emerson Davy
- Troy Coker
- Matthew Bland

Programmers

- Keane Carotenuto
- Nerys Thamm

Falsepine is a 'cryptid hunting roguelike' isometric shooter, where players delve into the depths of forbidden lands to hunt legendary monsters that threaten the local villages. Players will explore, finding lore and upgrades to help them make their next journey a little easier, but beware of death as you'll find yourself starting all over again with a new character!

"Originally when we were starting out, we wanted to make something – we call it 'different' or 'unique', but really, that was more of an aesthetic thing. We noticed a lot of third year games were a lot more stylized – which is awesome – but we wanted to stand out with something a little different, so we decided to try for realism," says Matthew Bland, now an Animator at Grinding Gear Games.

The Voyager Softworks team combined a Western theme with elements of horror, to create Falsepine, inspired by games like Hades, Monster Hunter: World and Hunt: Showdown.

Programmer Nerys Thamm, who referred to Falsepine as a 'labour of love' has also landed a position, as a Programmer at PikPok. "MDS equips you with the skills to have an idea and then know what to do to follow that project through to the end. I think it's the best place in the Southern Hemisphere when it comes to games especially if you want to get a job afterwards."

Falsepine is available to play on Steam.



SOME OF WHAT YOU'LL STUDY

Introduction to Software Engineering for Games

Begin with an introduction to the C++ programming language and the opportunity to construct simple games.

Fundamental Mathematical and Engineering Principles

Begin with basic mathematics before progressing to the core mathematical skills required for solving games problems.

Algorithms and Data Structures

This component teaches the fundamental data structures and algorithms that are needed to solve common gaming problems.

Introduction to Games Mechanics

Examine how games function from a technical perspective by playing, analysing, reading, discussing and writing about games.

Mathematics for Graphical Games

Learn to construct mathematical solutions to common gaming problems. Then design, develop, test, and enhance a game that requires a significant degree of mathematics.

Software Engineering Principles and Practices

This component focuses on the skills for project management experience, production methodology and version control.

2D Game Programming

Get familiar with more advanced programming concepts, including a basic introduction to user-interface design and software engineering management methods.

Game Design Principles

Learn principles of game design, including rules, progression and balance by collaborating in teams to ideate and create both physical and digital games.

To find out more about the second and third year course structure of the Bachelor of Software Engineering, and for up-to-date and comprehensive course information, including dates and fees, visit mediadesignschool.com.

