

# Ryan Sumner

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## Personal profile

Having gained a strong BSc in Computer Science from Massey University in Auckland, this was followed by a Master's degree in Computer Graphics from Victoria University of Wellington, a study programme developed in close collaboration with Weta Digital. Also possessing excellent written and oral communication skills obtained from over 7 years in tertiary academia. Work experience includes university tutoring for game development and programming for both VR/AR solutions and demos through an internship within an innovations team at Datacom. More recently volunteering for a niche VR/AR multi-disciplinary content creation & development studio called Mixt.

## Education

- Mar 2014 - Jan 2017 **Master of Science (MSc) in Computer Graphics (with Merit)**  
*Victoria University of Wellington*  
**Grades:** Thesis in Computer Graphics – (B+), Computer Graphics Interaction Design – (A), Computer Graphics Rendering – (B-), 3D Modelling in Computer Graphics – (B), Maths for Games & Graphics – (B+), Programming for Graphics – (B+), Computer Graphics for Film – (A+).
- Mar 2013 - Nov 2013 **Master of Science Prerequisites**  
*Victoria University of Wellington*  
**Grades:** Algorithms and Data Structures – (A-), Introduction to Computer Graphics – (B-), Computer Game Development – (B), Design Visualisation – (B-), 3D Modelling and Animation – (B), Postproduction & Special Effects – (A-).
- Feb 2010 - Nov 2012 **Bachelor of Science (BSc) - Major in Computer Science**  
*Massey University, Albany Campus*  
**Final year grades:** Database Development – (B-), Artificial Intelligence – (B+), Algorithms and Languages – (B+), Computer Networks – (A), Concurrent Programming and Operating Systems – (A-), Application Software Development – (A).
- Jul 2008 - Nov 2009 **Pinehurst School, Albany, North Shore City, New Zealand**  
**IGCSE Exam results November 2008:** Biology – (B), Mathematics – (A), Information Technology – (B), Chemistry – (A), First Language English – (A), Physics – (A), Literature – (B)  
**AS Exam results November 2009:** Biology – (C), Chemistry – (C), English Language – (A), Mathematics – (B), General Paper – (A).
- Sep 2003 - Jun 2008 **Victoria College, Jersey, Channel Islands**  
**GCSE Exam results June 2008:** Biology – (A\*), Chemistry – (A\*), Physics – (A\*), Mathematics – (A\*), Religious Studies – (A), Drama – (B), French – (B), English – (A), English Literature – (B), Media Studies – (B), Geography – (A).

## Key Skills and Experience

### Technical Skills

- Extensive experience in the following programming languages, tools and methodologies gained through university assignments and/or work experience projects.
  - Designing and Modeling 3D assets in Maya
  - Unity3D (Scripting, design, special effects, etc.).
  - C, C++, C#, Java, Python, OpenGL

- Team based development and scrum agile project management methodologies
- Github software development platform and web based hosting service
- Also have obtained some experience with PHP and SQL.
- Knowledgeable in the use of numerous other industry standard game engines and software tools such as Unreal Engine 4 and Houdini.
- Conducted significant research and carried out user studies contributing to the current body of knowledge on Virtual Reality as part of Master's Thesis.

## **Communication & Soft Skills**

- Oral
  - Exceptional communication skills developed through many years of academic teamwork along with paid employment as part of a development team.
    - Delivering presentations and tutorials to other students and interfacing with the general public during university open days.
    - Conducting technical demos and presentations to clients and management.
    - Collaborating in meetings with peers and management.
- Written
  - Strong professional written skills developed throughout many years of tertiary education and the completion of a significant Master's Thesis.
  - Some experience in the creation of business case/market research/product brief documents.

## **Relevant Experience**

13th April  
2018 -  
Present

### **Mixt Studio:**

Volunteering at this multi-disciplinary content creation & development studio which excels in telling digital stories using immersive, interactive, augmented reality, virtual reality & 360 video experiences. Currently constructing a VR experience in Unity3D which aims to promote the benefits and value of robust design in multiple industries. In particular:

- Working alongside designers, clients and partners in translating and improving a storyboarded version of the experience into the VR medium.
- Unity3D development as part of small team that often includes mentoring other junior but less experienced team members in Unity3D development techniques and VR design processes.
- Preparation for exhibiting this VR / demo and interactive experience during Tech Week.

24th Oct  
2017 -  
Feb 16th  
2018

### **Internship: Datacom**

- Worked as part of the MARS (Mobile Applications and Rails) innovations team at Datacom, collaborating with governmental departments and both large and small businesses to design solutions that solve their specific problems.
- Recruited as part of the team to explore some of the benefits that Virtual and Augmented Reality technology could bring to clients. Achievements included:
  - Created and presented both individually and as part of a group, numerous technical demonstrations to illustrate both Virtual and Augmented Reality solutions to potential clients.
  - Produced market research and product brief / feasibility documents.

- Collaborated regularly with both colleagues and management and participated in brainstorm meetings producing concept documentation for potential new opportunities and products.

Mar 2016 - Jun 2016 & Mar 2017 - Jun 2017  
**Victoria University: Tutor for “Advanced Game Development” (300 Level Paper)**

- Preparation and delivery of tutorials involving the Unity3D game engine.
- Provision of advice and technical assistance to students in completion of assignments and examinations.

Jul 2016 – Nov 2016  
**Victoria University: Tutor for “Introduction to Computer Graphics” (100 Level Paper)**

- Supervision of assignment sessions involving the processing language.
- Marked assignments, tests and exams.
- Invigilated a midterm test.

**Victoria University: Thesis**

- Completed a Masters thesis entitled: “**The Impact of Dynamic Convergence on the Human Visual System in Head Mounted Displays**”. This postgraduate research work involved extensive research into the replication of human eye rotation for Head Mounted Displays to help users view very close virtual objects without any difficulty. Transferable skills obtained include:
  - Academic research techniques, interpersonal communication, data collection, analysis synthesis, conceptualisation and critical thinking along with effective report writing and time management.

## Other Experience

- Delivering a number of presentations and demonstrations, two of which were to Weta Digital technical staff that illustrated:
  - A system that spread a fire-like effect across a mesh. This was for a group graphics project (400 level paper “Programming for Graphics”).
  - Replicating the human eye rotation, called convergence, for Head Mounted Display (part of the research for my Master’s thesis).
- Experience in working with the general public includes:
  - Representing the Design and Graphics School at Victoria University’s Open days (August 2015 & 2016). This involved listening to the studying objectives and career aspirations of young students and parents and discussing the options provided by Victoria University.

## Interests

- Virtual reality, Augmented Reality, game development, programming, video games, anime, board games and card games.

## Personal Information

**Nationality:** British  
**Place of Birth:** Shrewsbury, Shropshire, UK  
**Date of birth:** 04/11/1991  
**Immigration Status:** Permanent Resident