



POSITION DESCRIPTION

SENIOR VIRTUAL REALITY DEVELOPER

Location:	Parkville
Division:	Orygen Digital, Research & Translation
Salary range:	\$75,000 – \$85,000 per annum pro rata, commensurate with skills and experience
Employment Type:	Part-time (0.8 FTE) Fixed Term position available until April 2022
Position reports to:	Project Leads: Project Management, Youth Early Psychosis Medical Lead & Technical Leads

1. POSITION SUMMARY

The Senior Virtual Reality (VR) Developer will work under the direction of the Project Manager and Research Team to lead the creation of high-quality Virtual Reality and Virtual World based interventions for young people's mental health.

The Senior VR Developer will supervise a VR / Game Developer, and work alongside a broader project team of software developers, psychologists, psychiatrists and content creators (including young people who have personal lived experience of mental ill health), to support development of new VR and Virtual World interventions to support youth mental health treatment. The main responsibility will be producing high quality VR prototype applications, which will involve various aspects of VR environment/game's creation from concept to finished product including coding, programming, audio, design, UX/UI, production and visual arts.

The Senior VR Developer will oversee, manage and implement projects from conception to delivery while working in an interdisciplinary team under direction from the project leads. We need an experienced VR developer who will use their passion to learn new tools and techniques, and work within an interdisciplinary team to create and implement innovative VR and gaming solutions on a relatively small budget, ultimately in pursuit of helping young people with mental ill health.

This role is expected to involve supervision of a small but growing team of junior developer staff, and to show initiative and a sense of responsibility for the effective operation of the Orygen Digital's team. Note that you will be required to work flexibly in a small team across a range of tasks that primarily involve VR development and programming, however may involve broader activities such as UX testing and design. You will have to work creatively with the team to identify innovative solutions to developing MVP prototypes to meet project requirements. We are seeking someone who is creative and passionate about using their skills and expertise to create innovative applications of virtual reality for advancing treatment of mental health in youth.

POSITION CONTEXT

At Orygen, our leadership and staff work to deliver cutting-edge research, policy development, innovative clinical services, and evidence-based training and education to ensure that there is continuous improvement

REVOLUTION IN MIND

in the treatments and care provided to young people experiencing mental ill-health. Orygen Digital, the digital mental health division of Orygen, designs, delivers and evaluates evidenced-based digital services for youth mental health, including Moderated Online Social Therapy (MOST), virtual reality and just-in-time mobile interventions. Orygen Digital requires an experienced individual to join a growing team of researchers, clinical psychologists, software engineers, writers, artists, young people and frontline mental health professionals to assist in the development of novel VR interventions for young people with mental health difficulties.

This role will be based at Orygen Digital's new Virtual Reality and Technology Innovations Space, a cutting-edge VR development and testing lab and clinic based at Orygen, Parkville.

2. ABOUT ORYGEN

VISION	Young people to enjoy optimal mental health as they grow into adulthood.
MISSION	Reduce the impact of mental ill-health on young people, their families and society.
VALUES	Respect, Accountability, Teamwork, Excellence & Innovation.
COMMITMENTS	First Nations people of Australia, Young people and their families, LGBTIQA+ people & Culturally and linguistically diverse people.

3. KEY RESPONSIBILITIES/OUTCOMES

The Senior VR Developer will:

- Supervise a small and growing team of junior VR and game developers to design and implement VR software at all levels of the stack, from the application UI all the way down to the low-level systems software, for desktop and VR.
- Develop prototypes and final implementation of the system functionality, as well as testing and debugging of the software to create a minimal viable product for deployment.
- Produce user interfaces, VR interactions and gaming mechanisms in Unity3D for an online virtual world platform run on PC and other VR based applications
- Set up 3D assets and animation data in Unity3D.
- Plan and oversee user testing for VR interventions to produce a high standard of UX and UI for VR applications
- Contribute to co-design process of the VR environments in conjunction with junior developers, clinicians and young people with lived experience of mental health issues.
- Assist onsite with technical issues if required.
- Plan and implement iterative design process to produce high quality VR applications, including testing and bug tracking
- Ensure that the virtual environments are optimised to deliver smooth experiences in VR and minimising adverse effects, such as motion sickness.
- Contribute to the creation of multimedia content for the public dissemination of our research.
- Stay up to date and report to the research search on latest developments in VR, gaming trends, techniques, best practices and related technologies
- Collaborate in other on-going research projects and participate with new ideas for future projects.
- Participate in other activities and responsibilities as directed by either of the Project Leads.

4. SELECTION CRITERIA

The following criteria must be met for consideration for this position:

Essential

- Minimum Bachelor's Degree in Computer Science, Software Engineering, Game Design or related technical field.
- 2+ years professional experience VR development/3D game production in Unity and similar software

- Ability to create and maintain milestones, timelines, deadlines, and efficient VR and game development processes to ensure tasks are completed on schedule and within budget
- Proficiency with C++ and/or C# or .net programming
- Understanding of computing data structure (e.g. linked list, tree, array etc.)
- Experience working with Unity3D or Unreal Engine.
- Understanding of game software development and agile development.
- Experience with source control software (e.g. git, DevOps).
- Experience in UX principles and product management processes
- Ability to implement a light-weight user interface independently without assistance.
- Self-motivated and comfortable dealing with the ambiguity of early-stage product development and testing
- Ability to make decisions on game/feature architecture in collaboration with a team of non-technical experts and follow it through to implementation
- Ability to explain technical information in simple language.
- Ability to solve problems and exercise high-level judgement where issues require escalation.
- Ability to prioritise in conjunction with excellent time management skills.
- Ability to demonstrate excellent negotiation, mediation, and conflict resolution expertise
- Ability to direct and delegate effectively while also providing effective critiques and feedback
- Ability to foster a dynamic and collaborative team environment in an academic setting
- Excellent oral and written communication.

Desirable

- Experience with real time networked features (i.e., synchronous multiplayer games)
- Experience in managing VR / game development teams
- Good understanding of both 2D and 3D animation.
- Ability to work with video and audio formats in Unity3D (e.g. .mp4, .mp3, .wave etc.)
- Interest in innovation and digital tools for youth mental health.

5. PROFESSIONAL AND ORGANISATIONAL KNOWLEDGE

Duties at or above this level typically require a skill level which assumes and requires knowledge or training equivalent to:

- Understanding in VR design and agile prototyping.
- Understanding with programming in Unity3D.
- Understanding in usability testing.
- Excellent computer skills with the ability to explain technical information in simple language

6. SPECIAL REQUIREMENTS

- Unrestricted right to live and work in Australia.
- A current National Police Check will be required.
- Any offer of employment is conditional upon receipt and maintenance of a satisfactory Working with Children Check.
- Occasional out of hours work may be required. Hours may change according to demand and engagement patterns on the platform.
- This role will initially commence work remotely from home. The successful incumbent must have confidential home office space and reliable internet connection. (In response and subject to COVID-19 pandemic responsive change to working space).