Vacancy:	**Senior Developer: 3-Dimensional (3D) Game Development**
Level:	**Middle Management**
Remuneration:	**R 776 012 – R 1 164 018)**
Location:	**Pretoria**
Type:	**Permanent**
Closing Date:	**17 March 2025**
Email CV to:	**recruitment@tianaconsulting.co.za**

About the job:

The incumbent will be responsible for researching, designing and implementing Augmented, Mixed, and Virtual Reality technology to deliver innovative, high-impact solutions to government and industry stakeholders. S/He will have the opportunity to work with cutting edge Extended Reality (XR) hardware and software and explore XR integrations with other 4IR technologies. This position is based in Pretoria and will report to Research Group Leader.

Key responsibilities:

- Conceptualise, design and prototype game concepts, mechanics, leader board, inventory systems, systems and technical requirements for Extended Reality (XR) solutions using C#, Python, HTML or JavaScript;
- Generate and contribute towards science engineering and technology (SET) activity targets and outputs (reports, guidelines, system requirements, peer-reviewed publications, technology, and software packages, etc.);
- Create and maintain the games codebase, ensure code quality, performance, and modularity;
- Optimize game performance, including graphics rendering, memory management, and network synchronization;
- Conduct thorough testing and debugging of the game, identify and resolve defects and gameplay issues;
- Implement game functionality, including player controls, artificial intelligence, physics and audio;
- Understand and interpret client requirements to contribute to user requirement analysis and/or well-articulated project proposals;
- Keep up to date on emerging trends in XR Technology in relation to new approaches, tools, methods, or frameworks;
- Participate in internal task teams or committees in relevant domains;
- Participate and engage in relevant XR communities to grow networks and capabilities;

Qualifications, skills and experience:

- A Diploma in computer systems engineering, information technology or related fields to Extended Reality with at least six years' experience in extended reality software development; OR
- A bachelor's degree in computer engineering and related fields with at least four years' of experience;
- Must have experience working with game engines and 3D modelling tools such as Unity, Three.js, Unreal Engine, Blender, 3D's Max or Maya and programming languages such as C#, Python, HTML or JavaScript;

- Must be passionate, creative and open to experimental research and continuous learning to keep up with the fast pace of innovation in XR;
- Creative thinking and a strong attention to detail to create memorable and immersive gaming experiences;
- Ability to manage multiple projects simultaneously and meet deadlines in a fast-paced environment;
- Strong understanding of game development principles, including gameplay mechanics, physics, artificial intelligence, and multi functionality;
- Excellent problem-solving and debugging skills to identify and resolve technical issues;
- Passion for gaming and a deep understanding of various game genres and player experiences;
- Knowledge of graphics programming, shaders, and rendering pipelines;
- Familiarity with version control systems (Git), Agile development methodologies, and collaborative development practices;

What's in it for you?

- Flexible hybrid work arrangement;
- Learning and development opportunities.
- Competitive and market-related remuneration packages.
- Total guaranteed salary packages which encompass contributions to the pension fund, risk insurance and medical scheme.
- We openly acknowledge and reward our employees' contributions and accomplishments through our esteemed Company Excellence Awards.