VIKRAM SARAN

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PROFILE

Vikram is an experienced game developer with a strong background in games programming, people-management, and education. He possesses a passion for deep understanding and continuous improvement of both teams and systems. When added to his attention to detail, these characteristics combine to facilitate rapid delivery of high standard code.

SKILLS & ABILITIES

PROGRAMMING

- Languages: C++ (7 years), C# (4 years), Python (6 years)
- Game Engines: Unreal (6 years), Unity (4 years)
- Workflows: Test-Driven Development (2 years), Agile (4 years)
- Source Control: git (5 years), Perforce (1 year)
- Specialities: Physics Engines (3 years), Digital Realities (4 years), Artificial Intelligence (3 years), Optimisation (4 years)

PROJECT MANAGEMENT

- Tools: Jira (1 year), Microsoft TFS (2 years), Trello (4 years)
- Workflows: SCRUM (3 years), Kanban (4 years)

EXPERIENCE

LECTURER AND PROGRAM COORDINATOR

UNIVERSITY OF THE SUNSHINE COAST

FEB 2016 - PRESENT

- Redesigned the Bachelor of Serious Games to match modern industry standards.
- Coordinated all subjects in the Games Programming Minor available at USC.
- Developer for the Engage Research Cluster, specialising in Augmented and Mixed Reality technologies and mobile game development.
- Technical Producer of the ‘TMR AR’ application for Queensland's Department of Traffic and Main Roads.

GAME DEVELOPER

OPAQUE MULTIMEDIA

JUNE 2013 – JAN 2016

- Developed contributions to the Universe Engine, an in-house HTML 5/node.js game engine, including the network stack.

- Implemented several applications for clients within the Universe Engine, such as a real-time data tracking app for NASA's International Space Station.
- Led R&D of the Howitzer.ts physics engine as both a standalone tool, and integrated with the Universe Engine.
- Developed low-level physics-based animation technologies as an extension for the Unreal Engine 4 using techniques such as Inverse Kinematics (IK) and Kalman Filtering.
- Integrated novel technologies with Unreal Engine 4, such as the Kinect for Windows, Faceware Motion Capture, and several unannounced projects with major clients.
- Led delivery of a third-party Unreal Engine project as an in-house contractor for a large corporate client, including negotiation, development, and daily client liaison with various stakeholders.

COMMUNICATION

- Presented on Data Processing for Novel Input Devices at nucl.ai 2015, in the Virtual Reality track.
- Presented on Solving Old and New Problems with Virtual Reality at Future Assembly 2015.

EDUCATION

SWINBURNE UNIVERSITY OF TECHNOLOGY, MELBOURNE
BACHELOR OF COMPUTER SCIENCE (HONOURS)

Researched into Gendered Animation in Games - specifically looking at improving tooling within modern Animation workflows.

SWINBURNE UNIVERSITY OF TECHNOLOGY, MELBOURNE
BACHELOR OF SCIENCE (CSSE) / MULTIMEDIA (G&I)

Awarded Dux in Artificial Intelligence for Games, Games Programming, and Research Methods.

Developed a strategic AI bot based on Sun Tzu's Art of War and demonstrated that two millennia old principles of warfare can apply to modern gaming.