James Goodman - Unity VR Developer
Phone: 07985 494587 | E-mail: jagoodmail@gmail.com
Portfolio: https://jgoodhub.github.io

Personal Summary

Driven software developer with in-depth knowledge attaining to the core principles of programming both well documented and reusable code, in Object Orientated languages. During my role as a Unity developer I have gained experience in all stages of production from requirements clarification, through software development, concluding with client lead feedback sessions. An example of this was a Highways England project which involved iterative talks with the client to refine the end product to the highest possible standard.

My enthusiasm for game development has led me to broaden my skills in Unity during my free time, including creating an android app called “Letter Chain”, which I have since released to the play store. This involved using Unity Services to set up Ad Monetization and fulfilling the various requirements of releasing an app using the Google Play Console. I also create 3D models for use in both personal projects and 3D printing, which as well as being enjoyable has helped me to better understand the design and artistic workflows of my colleagues. I am always eager to learn new skills, techniques and tools that I can use to further expand my programming abilities.

Technical Skills

Languages: C#, C++, Java and Python **Tools:** Unity3D, Visual Studio/VS Code, Blender, Quixel Mixer

Libraries & Environments: Unity Android Development, Unity Services, Google Play Console, Ad Monetization, .Net Core, VRTK & Steam VR

Team Skills: Trello, Azure Devops, Github, Git Bash, Sourcetree and Sublime Merge

- Understanding of core OO programming concepts like encapsulation, inheritance and polymorphism.
- Knowledge of HTML, CSS and JavaScript as well as ASP.NET development and Photoshop.

Experience

Unity Developer
Costain Group PLC.
Sept 2019 - Present

- Produce immersive VR solutions to assist in virtual training of staff in a familiar and safe environment.
- Created a simulated airport environment that enabled trainee staff to practice tasks they’ll be expected to do in their daily job without the risks of learning in a live airport.
- Produced immersive visualisations for new Highways England schemes by creating intelligent traffic systems. These dynamically react to both AI and user driven vehicles to enhance realism in the scene.
- Chaired multiple group sessions with client site teams to continually develop a Unity simulation for testing construction installation procedures to reduce project time and costs.
- Produced a wide range of in-house developer tools that drastically sped up production of environments through automation of complex tasks including UV mapping, texturing and object placement.
- Assisted in the creation of a VR collaborative platform, allowing for teams in multiple locations to simultaneously review and manipulate 3D CAD designs, to identify potential areas of improvement.
- Created an intuitive VR tablet for natural use of an interface whilst exploring a virtual environment.
- Helped to develop a core set of VR functionalities that have been implemented across multiple projects though use of the Unity Package manager and VRTK, such as controlling dynamic weather and placing equipment from an inventory.
- Participated in Agile workflows through daily stand-up sessions and fortnightly review meetings to communicate project progress back to the wider team.
- Received positive feedback from multiple projects and have achieved “Over Performing” in both end of year reviews.

Education

2015 – 2019 University of Sussex - (BSc Hons) Computer Science with Games Development (Achieved 2:1)

Key Modules:

Dissertation

- Hero's Quest - A Dungeons & Dragons Inspired Role-Playing Game
- Turn based RPG that is largely inspired by the table-top game D&D and the fantasy genre.
- The player controls a party of four heroic adventurers as they undertake quests and battle fearsome monsters in order to level up, find new loot and progress through the story.
- Included learning skills such as implementing dijkstra's pathfinding, AI driven characters and abilities, NPC interaction and the capability for players to create their own maps using an in-game editor.

Further Programming

- Core programming concepts consisting of inheritance, polymorphism and code encapsulation.
- Model, View, Controller design principle and the inbuilt GUI libraries offered by JavaFX.

Programming Concepts

- Efficiency of algorithms and analysis of their best- and worst-case runtime complexities.
- Situations where they may be used and their pseudo-code definitions for deployment in a variety of languages.

3D Modelling and Rendering

- Covered how 3D geometry is passed down and processed at each stage of the core rendering pipeline to be displayed on the screen.

Software Engineering

- Production of large-scale software and its lifecycle after deployment using agile development.
- Worked as part of a team to create an application to a design specification document provided to us, this meant questioning the client on ambiguous points, use of version control software Git-Hub, and emphasis on code documentation to mimic a real-world project.

Human Computer Interaction

- The user research, iterative design, and eventual evaluation of a prototype app using User-Centred Design.
- The analysis and use of a range of research methods and the advantages/disadvantages linked to each in the field.

Global Design Challenge

- 2 Week-long team building exercise which involved finding a solution to issues faced by the 'Engineers Without Borders' charity group.
- Worked as a team to breakdown and understand the problem, then devised practical solutions with strategies for deployment and in field maintenance.
- Developed my team building skills and improved my ability to manage my time while still helping others with their own responsibilities.

2008 – 2015 Sir John Lawes Secondary School, Harpenden

Media Level 3 BTEC Diploma - Distinction*, Distinction, Distinction

AS-Level Computing - Grade B

G.C.S.E - 9 GCSE's, including A's in Mathematics and Science.